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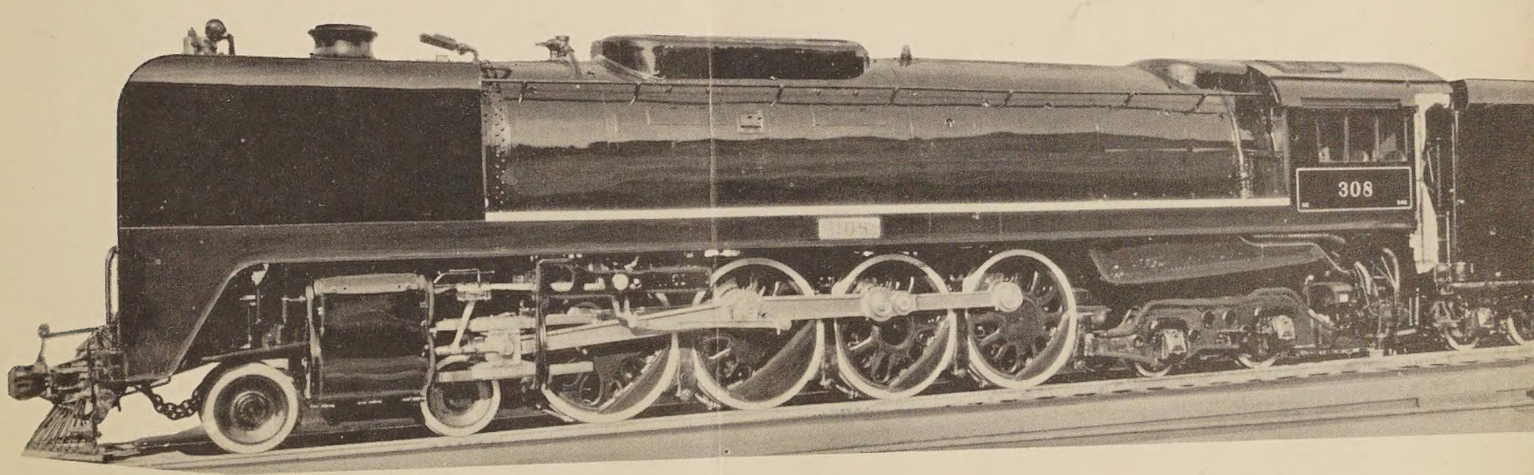

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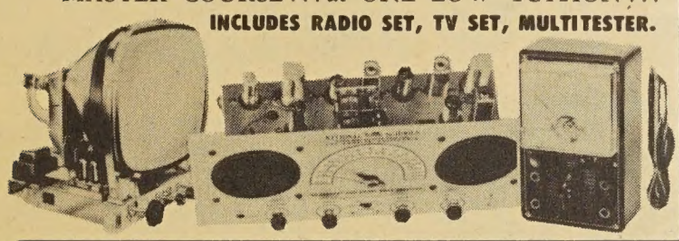

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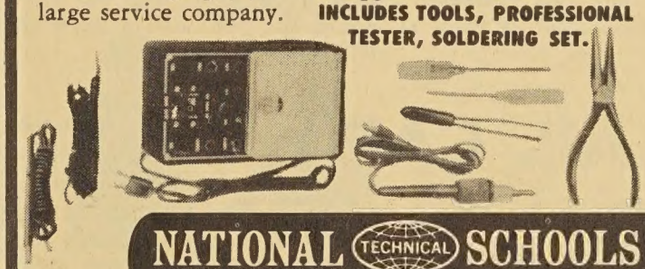

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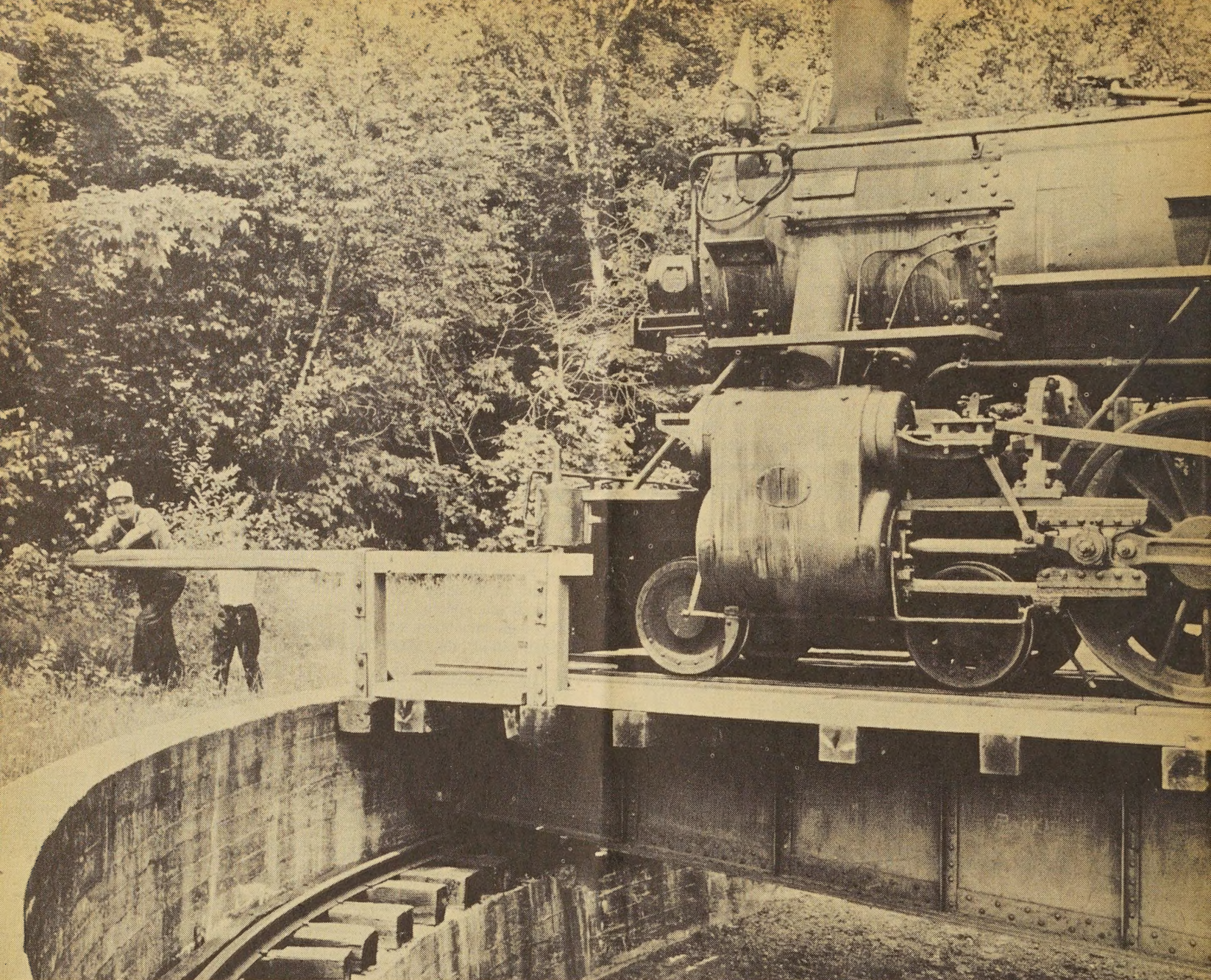

Not very long ago, Canadian Pacific 2583, Class G-2, was reversed on old "armstrong" turntable at Greenville Jct., Maine, before doubleheading back to Brownville Jct. with a work train. Little Mike Hardy helped to move the 4-6-2 engine.
David Plowden, New York City

MAIL CAR

Railroaders and Fans Sit in With the Editorial Crew

NOT OFTEN does the U. S. Government prevent a railroad from cutting its freight rates. But read this: Some time ago the Southern Railway developed a revolutionary new aluminum car for hauling grain. Using a hopper to unload, and dispensing with cleaning, rat infestation, and costly grain doors, the new car holds 100 tons of grain—about twice as much as the old car. Southern is using 500 of these new cars and wants to cut rates to the farmers and the public. But, at latest report, the Interstate Commerce Commission refuses to permit it. Why?

Because Cargill and Central Soya Co., two of the nation's biggest grain shippers, operate their own river barges and don't want cheap rail rates to compete with them in the South. Other barge owners also oppose the Southern's request for permission to lower its rates on grain shipments. So the obsolescent ICC gives preference to barge men and snubs the Southern Railway. ●

GRAND CENTRAL TERMINAL, once a proud landmark, is dwarfed by a depressing giant skyscraper. New York's classic Penn Station, based on fine Roman architecture, is being uglified into a skyscraper. And now we learn from Alex Darragh that a firm has signed a deal with Chicago Union Station Co., involving the Pennsy, Burlington, and Milwaukee, to build a 20-story, $20 million office building on the Chicago River's west bank, using air rights between Madison and Monroe streets. Judging from a model placed on display, it will be bleak and box-like. Too bad! One of the tragedies of modern civilization is that as buildings and institutions expand, the relative importance of the individual human being shrinks. ●

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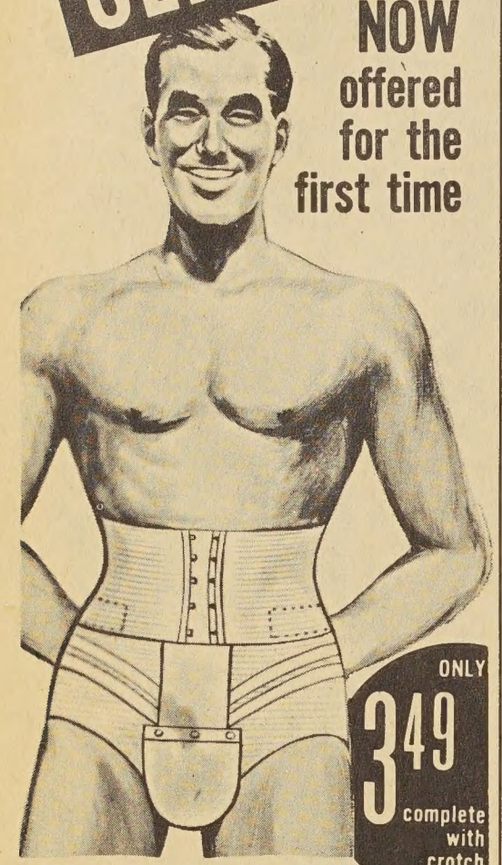
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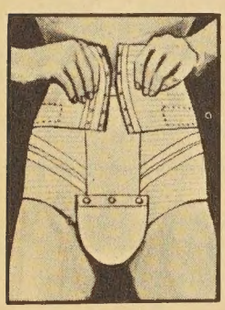
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Lady had a diesel loco and a caboose placed at her disposal. Accompanied by her mother, Aunt Jean, Cousin Michael, Secret Service agents, police, and railroad security personnel, Caroline had an exciting afternoon riding the loco and caboose in a freight yard (we don't know which one) on the outskirts of Washington, D.C. Both children were ecstatic over blowing the engine's air horn and ringing its bell. ●

CHESAPEAKE & OHIO, strong and profitable (5,154 miles), officially took over the faltering Baltimore & Ohio (5,874 miles) at 12:01 a.m. on February 4th. During the control period each road will operate separately under its present name, but after B&O is strengthened sufficiently the two carriers will merge. (Even then the Pennsy will still be the nation's largest railroad.)

A $250 million improvement program will give B&O new cars, new locos, enlarged tunnels for piggyback service, new yards, and better piers and docks. Only 25 of the total 10,978 miles run parallel and are being ripped up, but at some major points where the two partners meet new yards and other facilities will be built. Both systems are big coal carriers, tracing their history back to canal companies founded by George Washington in 1785. B&O took to the rails in 1830, C&O in 1836. ●

PERSONALITIES. Tennessee Williams must be a railfan. His first popular play was "A Streetcar Named Desire." His latest Broadway hit is "The Milk Train Doesn't Stop Here Anymore."

Bob Speck, CPI&P conductor, and his wife are bird lovers. Each week they distribute suet and 40 pounds of sunflower and mixed seeds into the bird-feeders outside their home at Valparaiso, Ind. Last winter's heavy snow attracted more birds to that spot than ever before. A group of wrens even wintered in Speck's workshop, singing as he tinkered with tools. Now that spring is here, winged visitors come and go all day long in large numbers.

In February we featured "A Man With 8,000 Ideas": John Drayton, a British Railways engineman who holds the record for suggesting improvements in operational efficiency. Illinois Central's top suggestor is David G. Fraser, Sr., storekeeper at Markham locomotive store. Dave has won 444 such awards, which paid him about $5,000.

Espee passenger car No. 1813, built in 1910 and used recently by a traveling maintenance gang of the San Diego & Arizona Eastern, was bought for $161 the other day by Jonathan Sapp, age 14, a San Diego schoolboy. Jonathan is refurbishing this car and hopes to find some way of operating it.

Tony Rom of Gheen, Minn., will sell the first issue of *Railroad Man's Magazine* (Oct. '06), minus cover, otherwise in good condition—make offer. Behind this item is an unsolved murder mystery. In 1958 Tony visited the Montana shack of his pal, John Maxwell, a gold-mining prospector, shortly after John had been murdered, with two bullet wounds in the back, and he found that old magazine on the floor.

Peter Josserand, author of "Tomorrow: Trains With Brains?" (April '63), is a WP night chief dispatcher—not retired as stated in that issue. He had expected to be pensioned before the magazine came out, but wasn't.

A new use for steam locomotives was found recently when Father Frank Royer, S.S.C., a Chicago missionary in Korea, used water from a locomotive tank—the only water available—to baptize a dying Korean woman, run over by a train.

"I know several railfans, like myself, who live in Israel and are familiar with *Railroad Magazine*," writes Hans Kohut, Kikar Noah, Givatayim, Israel. "We meet to discuss our hobby, bringing along railroad publications from foreign lands and we all read them."

A premature baby named Michael Gadoury was delivered recently by Condr. Ambrose Ellis in the caboose of an Ontario Northland freight train. The dispatcher thereupon gave the train rights over everything and it made a fast run to the nearest hospital, at Haileybury, Ont., Canada. There two doctors worked over the blue infant for 90 minutes before he breathed naturally.

One of the 4-4-0's on the Morris & Essex (later Lackawanna) was the *Edith*. We learn from Thomas B. Annin, 102 Manor Dr., Red Bank, N. J., that this engine was named for Miss Edith Broome, a cousin of M&E Paymaster Strong. Edith was a close friend of Strong's daughter Elizabeth. "I was 8 or 9 years old when I boarded with my parents in South Orange, N. J.," Tom writes, "at the same place where the two girls boarded, and I remember them both." ●

NEARLY 50 men, women, and kids, mostly railfans and some retired "rails," rode on the last Delaware & Hudson passenger train from Binghamton to Albany on Jan. 24, 1963, and returned to Binghamton that night, reports Allen H. Rhodes, Apalachin,

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N. Y. The train was delayed because her diesel locomotive had a frozen steam boiler. A frantic call for another diesel was made to the Colonie Shops (once famous for steam locomotives), but that one also was frozen. At length a third diesel was coupled on.

Kenneth Koons, 22, of Matamora, Pa., who had ridden the last North Shore interurban, hurried back from Chicago to Binghamton for the D&H "funeral special." Members of the Susquehanna Valley Chapter of NRHS solemnly marched past the train with a coffin inscribed "1869-1963: D&H Passenger Service," and distributed histories of the run. While railroad buffs were waiting for the train to start, an Erie-Lackawanna freight car was derailed before their very eyes. That took the edge off the delay.

At 9:15 p.m. a bugler sounded taps in Binghamton, and that was the end.

Says H. N. Sawyer, 610 Empire Blvd., Rochester. N. Y.: "My father worked for D&H all his life. He was a doortender at the tunnel. How many oldtimers remember those tunnel doors? At age 17 I went firing, on D&H engine 837. That was in 1907. I want to hear from men I knew then. Where can I buy photos of D&H engines and trains of that period?" ●

NEWS IN BRIEF. St. Louis Zoo will soon have its own railroad, with 4 stations on its mile-plus right-of-way. At least two zoos already have midget railroads—in Portland, Ore., and Mexico City.

Norfolk & Western has opened its world's largest and fastest-loading coal pier, at Norfolk, dumping fuel at the rate of 16,000 tons an hour. N&W serves over 200 mines, originating more coal than any other U. S. railroad.

The Long Island is expanding its coordinated rail and bus operation, tapping built-up areas along Sunrise and Montauk highways not served directly by the railroad.

"Weathervane with replica of 4-4-0 pictured in *Along the Iron Pike* (April '63) is not so unusual," writes Richard Hoisington, 6 Park Ave., Derry, N.H. "I have one myself, purchased from a company called Cape Cod Weathervanes, located (I believe) at New Bedford, Mass."

Travel Editor of Buffalo Evening News, Buffalo 5, N. Y., pays $5 for each photo over 30 years old that it publishes on a travel subject. Each photo accompanied by a stamped, self-addressed envelope will be returned.

Weyerhaeuser's No. 12, according to David Hann, 3050 N.E. 41st Ave., Portland 12, Ore., is being restored at Longview, Wash. This 2-6-6-2 had been standing in front of the office. ●

RETURNING from a month of photographing Mexican steam trains, Elmer Treolar, 101 California St., Highland Park, Mich., gives us late news for the benefit of others planning to visit Mexico.

"The Coahuila & Zacatecas Railway run between Saltillo and Concepcion de Oro is now dieselized," he writes, "but keeps steam power for emergency service. You can still take good steam action shots in the mountains on the Nacional de Mexico run between Irapuato and Guanajuato. The railroad and highway are very close together between Teresa and Guanajuato.

"The Nacional's daily run between Escobedo and Irapuato has been dieselized, but a Consolidation steamer wheels a daily run between Acambaro and Escobedo. Daily trains on the Nacional between Puebla and Apizaco are steam-powered. Some runs on the Mexicano Division between the capital

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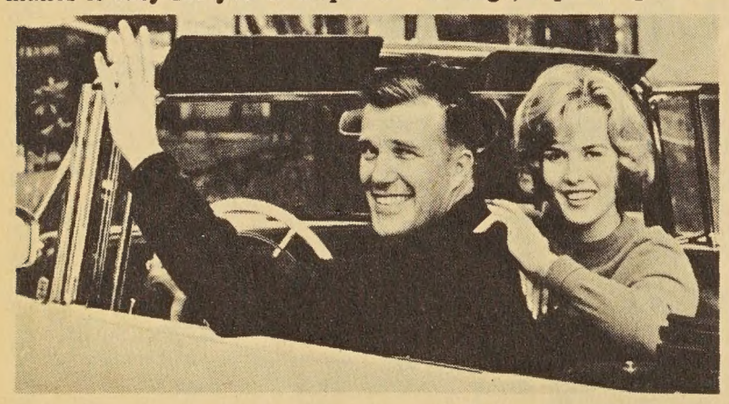

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and Esperanza have been dieselized; so have those linking Puebla with Oriental.

"The narrow-gage Interoceanico Division, Oriental-Tezuitlan, runs through the mountains. You can take good steam shots from the highway at many points. Two steamers are used on a narrow-gage mine road at Teziutlan. There is much steam action on the narrow-gage between Mexico City and Cuatla, also s.w. of Cuatla, between Jojutla and Puente de Ixtla, and between Puebla and Atlixco.

"By walking the ties from Fortin de las Flores to the Barranca de Metlac you can shoot steam, electric, and diesel. In the morning you can snap steam trains on the canyon's west side, with banana trees in the foreground and, in the distance, Orizaba, the nation's highest mountain, always snow-peaked. The railroad (Mexicano Div.) crosses the stone-reinforced high bridge (Puenta de Metlac) in the canyon's narrowest part. Trains on this bridge can be shot from track level, river level, or from high above in the canyon. Trains 309-310 cross daily with steam power.

"Between Cordoba and Tierra Blanca (Sureste Div.) all trains are steam. No highway is parallel but you can see action a-plenty by walking from Cordoba to San Miguelito. To get good steam shots in the mountains you should know some Spanish. Very few natives there, unlike many in the cities, speak English.

"Before you drive in remote areas, buy food at supermarkets in cities and take it with you. Most Mexican drinking water isn't safe. You can get bottled water in any good hotel or restaurant, or buy fruit juices or Mexican beer in supermarkets." ●

STEAM LOCOMOTIVES are still being built by TATA Works in Bombay, India, a representative of which recently visited the Colorado Museum, according to *Iron Horse News*. His firm has taken over the production of Garratt articulated engines from the British originators, Beyer-Peacock, and has designed a "Super-Garratt" 2-10-6 and 6-10-2 coalburner which should outpull anything else, any combination of present-day diesel power. It hopes to try out this baby in the U.S.A. The TATA Works is currently building some (maybe 50) 5′6″-gage 4-8-2's and 2-8-4's and a hundred 4-8-2 meter-gage oilburners.

Iron Horse News is edited by Robt. W. Richardson and published intermittently. Anyone sending six self-addressed stamped envelopes (4x9½″) to *Iron Horse News*, Box 641, Golden, Colo., will get the next six issues free of charge. ●

RECORD REVIEWS (by Howard Shottenfeld). *Night Freight*, $4.95, put out by Stan Kistler, P.O. Box 4068, Pasadena, Calif., presents a well-recorded trip aboard an unidentified Western road's oilburning 4-8-4 (maybe an Espee ex-Cotton Belt 800—am I right, Stan?). The sounds have variety, including three steam meets, grade climbing, fast running, a stuck cylinder cock, the crew conversing and calling signals, and so on. Play-by-play notes make the action easy to follow.

Iron Horse Rambles, $4.95 mono, $5.95 stereo, from Ralbar Productions, P.O. Box 212, Pottstown, Pa., stars Reading 4-8-4's 2124, 2100, and 2102 in 13 tracks of fantrip action, single- and double-headed, with good stack music and whistling (chime and freight). All sequences are well done, and several are quite unusual, e.g., a Ramble heard from within a tower, the op throwing manual levers and conversing with the dispatcher, and double-headed 4-8-4's running light. George M. Hart's jacket notes and J. J. Young's jacket photo are excellent. ●

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An Important Message

To Every Man And Woman

In America

Losing His Or Her Hair

If you are troubled by thinning hair, dandruff, itchy scalp, if you fear approaching baldness, read the rest of this statement carefully. It may mean the difference to you between saving your hair and losing the rest of it to eventual baldness.

Baldness is simply a matter of subtraction. When the number of new hairs fail to equal the number of falling hair, you end up minus your head of hair (bald). Why not avoid baldness by preventing unnecessary loss of hair? Why not turn the tide of battle on your head by eliminating needless causes of hair loss and give Nature a chance to grow more hair for you? Many of the country's dermatologists and other foremost hair and scalp specialists believe that seborrhea, a common scalp disorder, causes hair loss. What is seborrhea? It is a bacterial infection of the scalp that can eventually cause permanent damage to the hair follicles. Its visible evidence is "thinning" hair. Its end result is baldness. Its symptoms are dry, itchy scalp, dandruff, oily hair, head scales, and progressive hair loss.

So, if you are beginning to notice that your forehead is getting larger, beginning to notice that there is too much hair on your comb, beginning to be worried about the dryness of your hair, the itchyness of your scalp, the ugly dandruff — **these are Nature's Red Flags** warning you of impending baldness. Even if you have been losing your hair for some time, don't let seborrhea rob you of the rest of your hair.

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The development of an amazing new hair and scalp medicine called Comate is specifically designed to control seborrhea and stop the hair loss it causes. It offers the opportunity to thousands of men and women losing their hair to bacterial infection to reverse the battle they are now losing on their scalps. By stopping this impediment to normal hair growth, new hairs can grow as Nature intended.

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In short, Comate offers you in a single treatment the best that modern medicine has developed for the preservation of your hair. There is no excuse today except ignorance for any man or woman to neglect seborrhea and pay the penalty of hair loss.

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But don't delay. For the sake of your hair, order Comate today. Nothing — not even Comate — can grow hair from dead follicles. Fill out the coupon now, and take the first step toward a good head of hair again.

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Male pattern baldness is the cause of the great majority of cases of baldness and excessive hair loss. In such cases neither the Comate treatment nor any other treatment is effective.

Note To Doctors

Doctors, clinics and hospitals interested in scalp disorders can obtain professional samples and literature on written request.

"I used to comb out a handful of hair at a time. Now I only get 4-6 on my comb. The terrible itching has stopped."
—L. H. M., Los Angeles, Cal.

"My hair has improved. It used to fall out by handfuls. Comate stopped it from falling out." —D. M. H., Oklahoma City, Okla.

"My hair has quit falling out and getting thin."
—D. W. G., c/o FPO, N. Y.

"My husband nas tried many treatments and spent a great deal of money on his scalp. Nothing helped until he started using your formula."
—Mrs. R. LeB, Piqua, Ohio

"Comate is successful in every way you mention. Used it only a few days and can see the big change in my scalp and hair."
—C. E. H., N. Richland, Wash.

"My hair was thin at the temples, and all over. Now it looks so much thicker, I can tell it."
—Miss C. T., San Angelo, Tex.

"Now my hair looks quite thick."
—F. J. K., Chicago, Ill.

"My hair had been coming out and breaking off for about 21 years and Comate has improved it so much."
—Mrs. J. E., Lisbon, Ga.

"I've used a good many different 'tonics.' But until I tried Comate, I had no results. Now I'm rid of dandruff, and itchy scalp. My hair looks thicker."
—G. E., Alberta, Canada

"Used it twice and my hair has already stopped falling."
—R. H., Corona, Cal.

"No trouble with dandruff since I started using it."
—L. W. W., Galveston, Tex.

"It really has improved my hair in one week, and I know what the result will be in three more. I am so happy over it, I had to write!"
—Mrs. H. J., McComb, Miss.

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Rarely did three railroad water tanks stand side by side like these on the L&N at Worthville, Ky. In 1942 fire destroyed the tanks built here originally. Rebuilt, they served till Jan. 28, 1958, when the last steam loco left the area, then were razed.
Photo and article from Louisville & Nashville Railroad

THE VANISHING WATER TANK

by Edison H. Thomas

EVERY now and then someone comes up with the question, "What ever happened to the old railroad water tank?"

Its doom was forecast years ago when the first diesel locomotive roared by. But today, despite the diesel, a few water tanks of the Steam Age still stand along the rights-of-way of various railroads. A recent count revealed that six were left on the Louisville & Nashville, but that figure may be changed by the time this gets into print. One or two may have been torn down meanwhile, or some enterprising soul may remember another tank still standing at an obscure branch-line point.

Where are the remaining six on the L&N? Four are in Kentucky with one each at Louisville, Corbin, Cave City, and Hazard. Two, located in Tennessee, are at Summit, near Chattanooga, and at Paris. The one at Louisville stands adjacent to the employes' parking lot, site of the coal pile in steam days, and is still used to supply water for locomotives. Only today the water goes into the steam generators of passenger diesel units.

The one at Corbin, in the yard area, serves as a water reservoir for utility purposes. The tank near Hazard is situated on the Leatherwood Creek Branch in Perry County and furnishes water for several railroad section houses in that area. The one at Cave City has been sold to the city as a source of water for use in case of fire.

In Tennessee, you can see the tank at Summit just north of the Georgia state line. Small by usual standards, it still serves railroad purposes. Its water supply is replenished from a spring located just up the mountain. The one at Paris is no longer used.

Years ago the railroad water tank was a familiar sight on the American landscape. Probably the L&N hit its peak in 1941 when it listed 280 water tanks over the system. Most of them were built from the same plans. The average tank was 24 feet in diameter by 18 feet, 9 inches deep, and rested on a 22-foot-high base. These tanks were made of creosoted pine held together by adjustable steel bands and each had a capacity of 63,000 gallons of water. At the larger installations—such as DeCoursey Yard—they were usually of steel construction.

The steam locomotive was thirsty and most road engines in those days needed around 10,000 gallons of water at a filling. The Louisville & Nashville's big M-1's, however, the last of its mighty steam power, carried tenders that each held 22,000 gallons. During the year 1940, just before the dawn of the Diesel Age, the L&N's steam locomotives consumed seven billion gallons of water. This water was pumped into wayside tanks from railroad-built lakes, deep wells, springs and rivers at numerous points along the line.

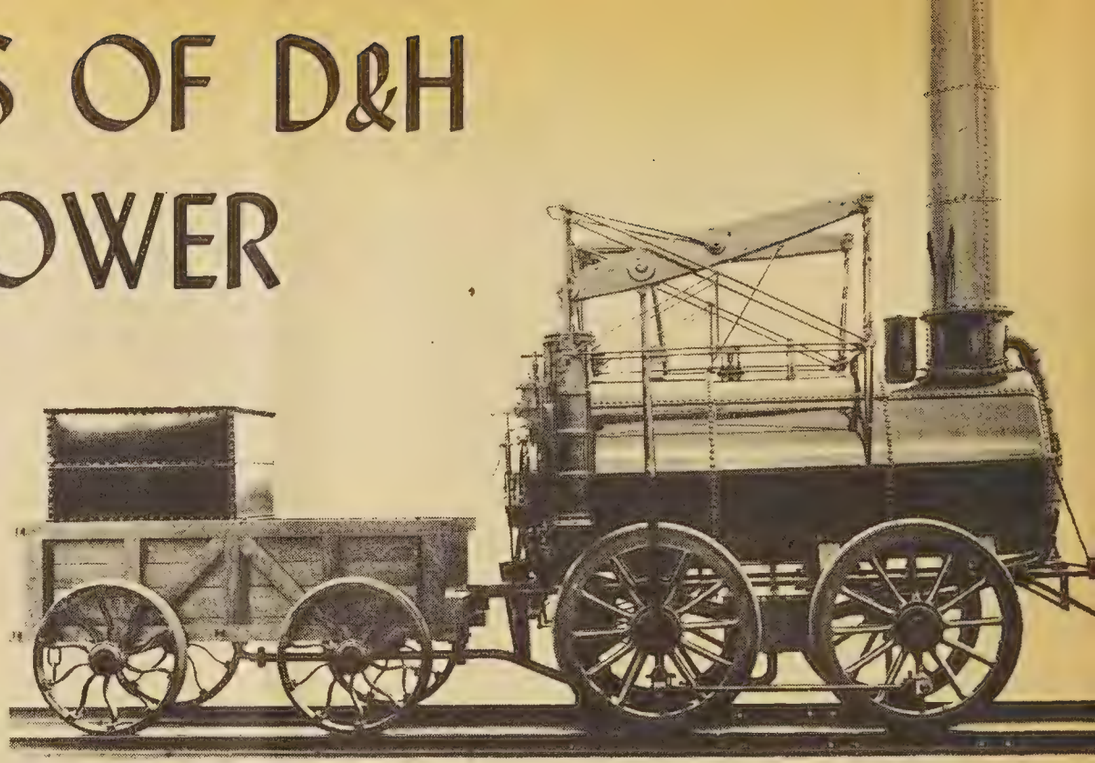
As diesels replaced steam power, water requirements were reduced and, one by one, tanks at wayside stations began to disappear. Now, big modern steel tanks hold the water supply where it happens to be needed, and cities along the line provide the remainder.

The L&N's lakes have long been declared surplus. One, at LaGrange, Ky., now a recreation area for employes, is stocked with fish and serves as headquarters for a fishing club. Today, Radnor Lake, near Nashville, is much more ornamental than useful while another, near Etowah, Tenn., is a city recreational area. Other water sources were disposed of years ago or eliminated with the passing of the steam locomotive.

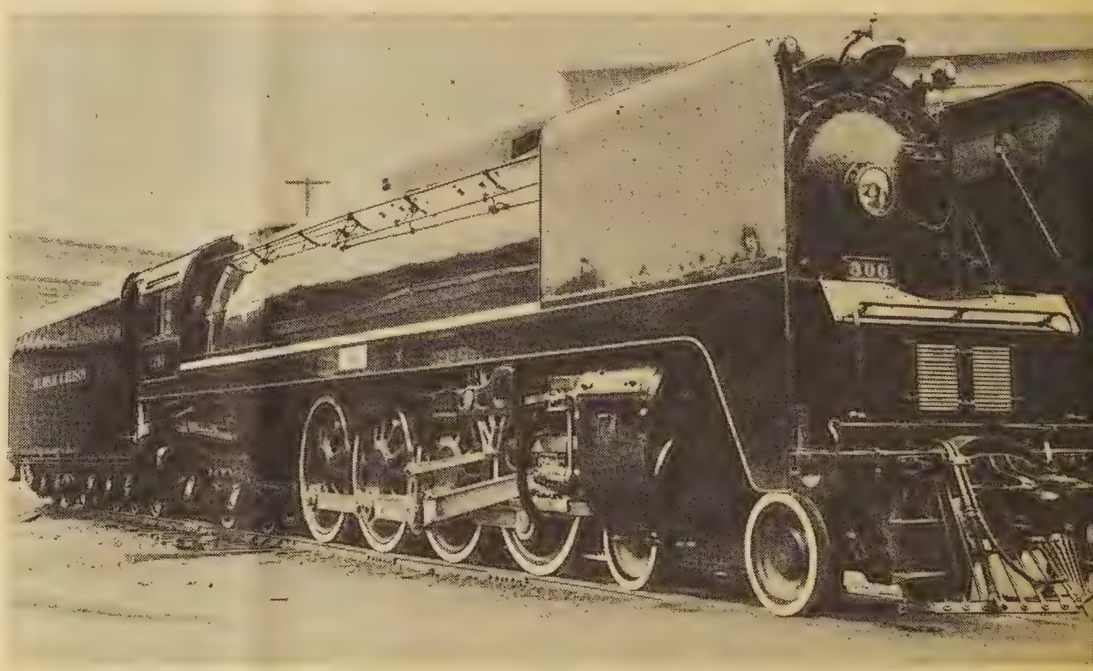
(The editor of *Railroad Magazine* would like to hear from readers who know of old water tanks for steam engines still standing on dieselized rights-of-way in other parts of the United States and Canada.)

117 YEARS OF D&H STEAM POWER

by Bert Pennypacker



The *Stourbridge Lion* (shown in replica) was the first locomotive used on any American common carrier. The last steam engine in regular D&H service, No. 302 (same class as the one pictured below), pulled the 11-car *Montreal Limited* from Montreal to Albany on July 17, 1953, and was scrapped later that year.



Delaware & Hudson photos

DURING the long, exciting era of steam operation that once seemed endless, Delaware & Hudson enginemen proudly warmed the seatboxes on some of America's most distinctive locomotives. Ah, those were the days!

Threesomes of mammoth, Wootten-fireboxed 2-8-0's bucked the mountain grades out of Wilkes-Barre, Pa., with ponderous loads of coal and merchandise. A bit to the north, 4-6-6-4 symphonies in steam and steel at full throttle walked up Richmondville Hill. And further north, sleek English-styled Pacifics whisked the *Montreal Limited* and the *Laurentian* alongside Lake Champlain's 125 miles of curving western shoreline while, in the diners, white-coated waiters served fresh venison with truffles and Burgundy. Late at night, passengers gazed out the windows of their gently-swaying berths at the shimmer of moonlight on the magical dark water.

Alas! for more than a decade now, no steam exhaust has echoed through the green-forested Poconos, Catskills, or Adirondacks, startling the deer and waterfowl; and yet for many of us the bright remembrance of that sound will never die. Early morning mist rising from creek and pond recalls the vanished smoke plumes that used to lift over tall treetops and fade into the sky.

Away back in 1829, when the Nation was young, the Delaware & Hudson operated a strange new monster, the *Stourbridge Lion,* the very first engine to run on any American common-carrier railroad. Nearly a century passed before the D&H reached the zenith of its steam power. During the expansive period from 1907 to 1938, under Lenor F. Loree's presidency, the Motive Power Department was turned inside out, so to speak, with new designs and rebuilds, with bold experiments and Camelback conversions to upgraded end-cabbers.

The D&H locomotive image was unique. We knew it as an exclusive, customized machine with such frills as smoke deflectors ("elephant ears"), recessed headlights, capstacks, single-dome housings, smoothly-surfaced boilers, outside-dumping ashpans, English-type cabs, and long, low tenders, enhanced further by gilt lettering and neat white trim on wheel tires, driving rods, and running boards.

Loree's engineering formula for efficient and thrifty operation led to a paradox. On one hand, his road was a laboratory and testing ground for the new and unusual. Its locomotives were the first to use roller bearings and high-pressured and welded boilers. D&H experiments included poppet valves and water-tube boilers. On the other hand, this modernism was practiced upon huge 2-8-0 hogs which until 1940 remained the standard for heavy, main-line, freight work.

Probably the best-remembered of all D&H steamers were 4-6-6-4's, a modern fleet of forty big Alcos, numbered 1500-1539. Operating men from Carbondale

to Binghamton and from Oneonta to Mechanicville fell in love with them. Bought between 1940 and '46, they rolled on mighty 69" drivers and exerted 94,400 pounds of tractive effort.

"These girls steam so well and are so damn fast you gotta hold 'em back," a fireman enthused.

Massive steel molded the smooth surfaces without tinny streamlining. Full-page ads of the company's fast freight service pictured the 1500 and later a 4-8-4, No. 300, in passenger timetables. These ads were not idle boasting; most D&H freight moved briskly over the road's saw-toothed profile.

We can never forget the thrill of watching three 4-6-6-4's plus a heavy Consolidation pulling and pushing a 7000-ton drag up the stiff 1.48 percent grade northward out of Carbondale, Pa., and we queried the roundhouse foreman, "Guess you ran smaller trains before the 1500's came?"

"Nope." He shook his head. "Our trains were always big. We're just using fewer engines now."

D&H men showed their agility by slipping a 4-6-6-4 helper onto a train ahead of a caboose. They would cut off the hack while running at high speed and allow it to coast and later rejoin the stopped train. The time and distance interval permitted the coupling on of a 4-6-6-4 helper.

One day this tricky maneuver nearly caused a wreck at Lanesboro wye, near the point where Delaware & Hudson tracks pass under the Erie's Starrucca Viaduct. After a 1500 had trundled out and onto the train, a second helper started moving toward the wye switch. Her keen-eyed hogger, apparently considering himself an expert judge of distance to the exact foot, stopped her pilot barely clear of the main stem.

The conductor on the nearby coasting hack was frightened and hardly knew what to do. At first it seemed he'd jump off. Then he gripped the brake handle tensely as if to try to stop the caboose but finally decided to stay with her. As the wooden crummy grazed by safely, he hurled maledictions at the throttle artist enthroned in his cab.

THE LAST steam engine ever built for D&H was a superb 4-6-6-4, No. 1539. Alco outshopped her in 1946.

Delaware & Hudson operator at YD has message for the engineman of No. 1528 (4-6-6-4 type) climbing a grade with freight southbound to Ararat Summit.
Photo by the author

No. 652, Class P-1, a Pacific built by Colonie Shops in 1929, poses beside Delaware & Hudson office building, Albany, N.Y.
Delaware & Hudson photo

Frank Quinn, 9123 85th Rd., Woodhaven, N.Y.

Daily except Sunday for years this trim 4-4-0 (Schenectady, 1903) wheeled two grass-green wooden coaches plus RPO-express car between Saratoga Springs, N. Y., and North Creek, end of a 57-mile branch in foothills of Adirondack Mountains.

That was 117 years after Horatio Allen, the 25-year-old assistant engineer of the Delaware & Hudson Canal Company, had personally operated the *Stourbridge Lion* over the light rails at Honesdale, Pa., making history.

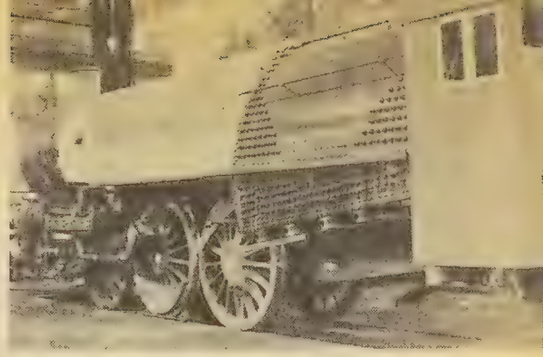
The *Stourbridge Lion,* weighing seven tons, was one of three engines built by Foster, Rastrick & Company at Stourbridge, England, and sold to Allen for $3,000 apiece. She was little more than a simple boiler and very high stack running on four 49″ wheels, but Allen made history that sunny August day in 1829 by running her twice over a gravity road that included a wooden trestle built to support only three tons. He did so against protests from friends and co-workers, shuttling across the groaning bridge with no dire results.

You can see her original boiler today at the Smithsonian Institution at Washington, D.C.—the only surviving bit of

Engines Built in Delaware & Hudson Shops

No. Blt.	Loco Type	Diam. Driv.	Total Weight	Date Blt.	Dimensions of Firebox	Boiler Diam.
5	4-4-0	68½	112,200	1886	10'8" x 3'6"	57
9	4-4-0	68½	112,200	1897	10'8" x 3'6"	57
4	4-4-0	68½	115,000	1898	9'6" x 7'6"	54
5	2-6-0	56½	111,636	1898	9'6" x 7'6"	54
3	2-8-0	56	150,100	1898	10' x 8'	60
2	4-4-0	68	115,000	1899	9'6" x 7'6"	54
2	4-4-0	68	126,200	1899	10' x 8'	58
2	4-4-0	68	126,200	1900	10' x 8'	58
4	4-4-0	68	126,200	1900	10' x 8'	58
2	2-8-0	56	156,000	1900	10' x 8'	65
5	4-6-0	72	175,000	1904	9' x 11'7/8"	65
1	4-6-2	73	443,800	1929	116 1/8" x 108"	74½
1	4-6-2	73	460,500	1930	116 1/8" x 108"	74½
1	4-6-2	73	457,000	1931	116 1/16" x 107 7/8"	74 9/16

Note: Diameter of all tubes was 2", except that all 4-6-2's had 2¼" tubes. All engines burned culm except those built in 1886 and '97, which burned lump coal, and all 4-6-2's, anthracite. The last 4-6-2 also burned bituminous coal.



No. 452, under construction in the Colonie Shops, is ready for jacket.
Delaware & Hudson photo

D&H steam power left anywhere! Beside it stands a complete replica of the ancient engine, built by D&H's Colonie Shops near Albany, N.Y., in 1933 and displayed that year at Chicago's Century of Progress Exposition, together with one of Loree's high-pressure compound experimentals.

At first many builders turned out D&H locomotives, but gradually the on-line plants of Dickson and Schenectady (Alco) shared a monopoly of the road's power. In 1882 Dickson built three small 2-8-0's, the first of a wheel arrangement that was to puff along confidently as D&H's standard freight-hauler for nearly six decades. They weighed 51 tons apiece, had 51" driving wheels, and were named the *Lion* (No. 179), the *Eagle* (180), and the *Nineveh* (181).

The first home-made power consisted of five eight-wheeled passenger jobs built in 1886 by the company's Green Ridge Shops at Scranton, Pa. Previously, those shops had been engaged in rebuilding since 1872, when an 0-4-0 was upgraded to an 0-6-0 named *Major Sykes*. However, the Green Ridge and Colonie shops built only a modest number of new engines. By 1910, just 43 of the road's 447 locos carried company-shop badge plates.

Also in 1886 came a companion development of equal importance: Dickson's delivery of the first Wootten-fireboxed culmburner, culm being cheap mine waste. She was a Camelback (or Mother Hubbard, if you prefer that term for a twin-cabbed engine)—a 2-6-0 with highly-placed and pencil-thin boiler, square cab, and bulging firebox. Her 140 pounds of steam flowed through 18x24" cylinders to turn 55¾" driving wheels and produce 16,590 pounds of tractive effort.

Although Camelbacks soon became standard on this road, as on many others, they passed out eventually, but the Wootten firebox remained a common sight on most D&H locomotives until Colonie built its last engine, a mammoth Consolidation, in 1930.

Wootten fireboxes were named for their inventor, John E. Wootten, general manager of the Philadelphia & Reading. Most roads in anthracite

Delaware & Hudson photo

No. 21, Class B-4 (0-6-0 Camelback switcher built by D&H in 1902), on new turntable installed at Colonie Shops in 1928.

mining areas adopted them because they burned culm. Delaware & Hudson firemen had to change their stoking techniques and carry a thin, light fire on the wide grates.

Fifteen years ago, a magnificent symphony of steel, steam, and smoke: engines 1234, 1529, and 1216 wheel heavy freight train northbound from Carbondale, Pa.
Bert Pennypacker, 4703 Palmetto St., Philadelphia, Pa.

THE ASHCATS who worked Camelbacks in winter, shivering on the deck of a rudimentary cab at the rear of the engine, had very little shelter from howling gales or driving snow. It was a tough life. Nobody accused the firemen of "featherbedding" in those days!

Oldtimers envy the modern comforts of a weatherproofed diesel cab. They recall firing double-cabbed 2-8-0's on fast freight out of mountainous Wilkes-Barre in blizzards. On such runs it was not unusual for their gauntlets to freeze tightly to the scoop handle. Sometimes a sudden lurch of the jolting tender would send scoop-plus-gloves hurtling into the white-hot fire. When that happened, unless he had an extra shovel aboard, the steam pressure took a nose-dive. An ashcat who was real lucky could borrow a shovel from a nearby farmhouse, giving it back to the farmer on his return trip. But not all were lucky.

You could hardly blame a fellow for fortifying himself against the bitter cold with the contents of a flask in his lunch pail. A certain fireman did that one wintry night on a Canada-bound fast freight out of Whitehall, N.Y. He was stoking a 700-series 2-8-0 Camelback on his first trip alongside the wind-swept Lake Champlain.

Even if he had been inclined to admire the bleak scenery, there was little time to do so. As the hard-working Consolidation pounded the snowy rails, mile after mile, the busy ashcat imbibed so much red-eye that it made him seasick. He had hallucinations of the lake rising and falling beyond the curvature of the Wootten backhead. Dark icy water on the right, then on the left, and again on the right—was he firing a locomotive or a boat?

After what seemed like eternity the husky 700 rolled into Rouses Point Yards. The woozy fireman staggered off her and made two vows. He'd never again drink on the job and never again accept a run along a damn bobbing lake that couldn't stay in one place.

Interior of cab of No. 609 (4-6-2 type), Class P, built by Schenectady in 1914.
Delaware & Hudson photo

WITHOUT Mr. Loree's unprecedented 31-year influence, who knows what form D&H power might have taken? This tall, bearded, and imperious brass collar did not retire from the presidency until just before his 80th birthday. His zeal for economy and efficiency-plus was almost a mania. It restricted the development of D&H wheel arrangements to the Consolidation, which was designed to sizes found only on two other major systems, the Philadelphia & Reading and the Western Maryland.

His one concession in the direction of 2-8-0's was 0-8-8-0 compound pushers, also planned for top efficiency with all weight on the drivers. This combination of road freight power moved heavy tonnage over a rugged profile with relatively few easy grades.

When the American Locomotive Company absorbed Dickson Locomotive Works in 1901 it became D&H's sole commercial engine-builder. The railroad's own Colonie Shops built relatively few locos, for three reasons: (1) those shops were small, (2) Alco's large Schenectady plant was not far away, and (3) freight shipments to and from the Schenectady plant made Alco one of the road's biggest customers.

By 1902 the Delaware & Hudson's development of 2-8-0's had graduated from square-topped slide-valve cylinders to the piston-valve variety. Cylinders measured 21x30", driving wheel diameter for freight hogs 57", and tractive effort 38,840 pounds. These engines were, of course, Wootten-boilered Camelbacks. Alco built 117 of them through 1906. Some lasted, with major

rebuilding, until the late 1940's. Most of them were numbered in the 800 series, Class E-3.

J. Louis Colvin, a retired conductor living at Carbondale, recalls a freak accident in 1908 involving one of the E-3's. His crew had completed work in the Hudson Yards at 9 p.m. and the light engine was pushing a wooden, four-wheeled caboose en route to the terminal. The men were tired. In their haste to knock off work, nobody had bothered to make sure the crummy was coupled securely. It wasn't.

The runner halted a moment for a signal, whereupon the little hack broke loose to coast on ahead a short distance. Pretty soon the engine smacked into it, knocking the startled rear brakeman out through an open door. The engineman was so shaken up that his fireman had to run her back to the roundhouse. But nobody was injured.

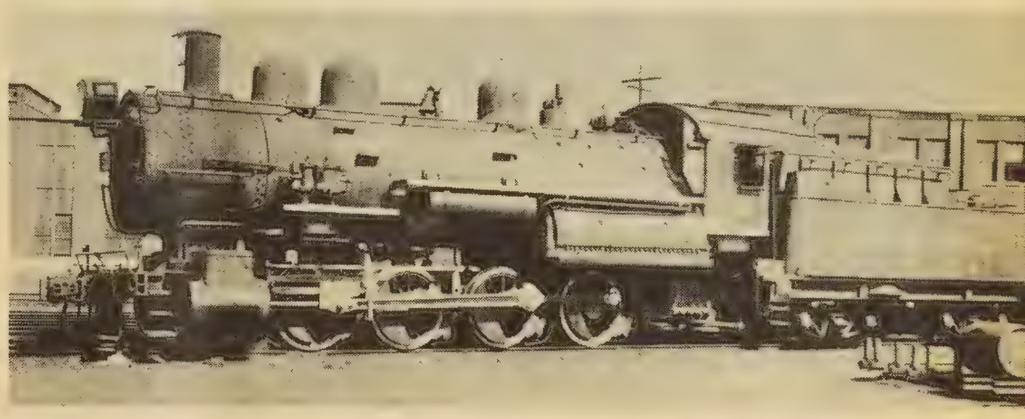
By 1906, the year *Railroad Magazine* was founded, the D&H had upgraded its 2-8-0 design to a sturdy-looking Camelback, Class E-5, numbered in the low 1000's. Cylinder diameter rose to 23", steam pressure to 210 pounds. More important, these were the first engines with the Walschaert valve gear. That was before Loree came to the D&H. However, in 1904, as president of the Baltimore & Ohio, he had Alco build America's first Mallet, an 0-6-6-0, equipped with the first Walschaert application in this country.

Between 1906 and 1908 Alco built a total of forty-eight E-5's. The final dozen had back cabs hung onto their wide Wootten fireboxes. This was D&H's first attempt to eliminate the unsafe Camelback. It preceded the Philadelphia & Reading's similar efforts by five years. P&R's Wootten firebox was of comparable size, too, having only about eight additional square feet of grate area (100 vs. 108). The E-5's switched from a culm diet to anthracite pea coal and all exerted 49,690 pounds of tractive effort, regardless of cab location.

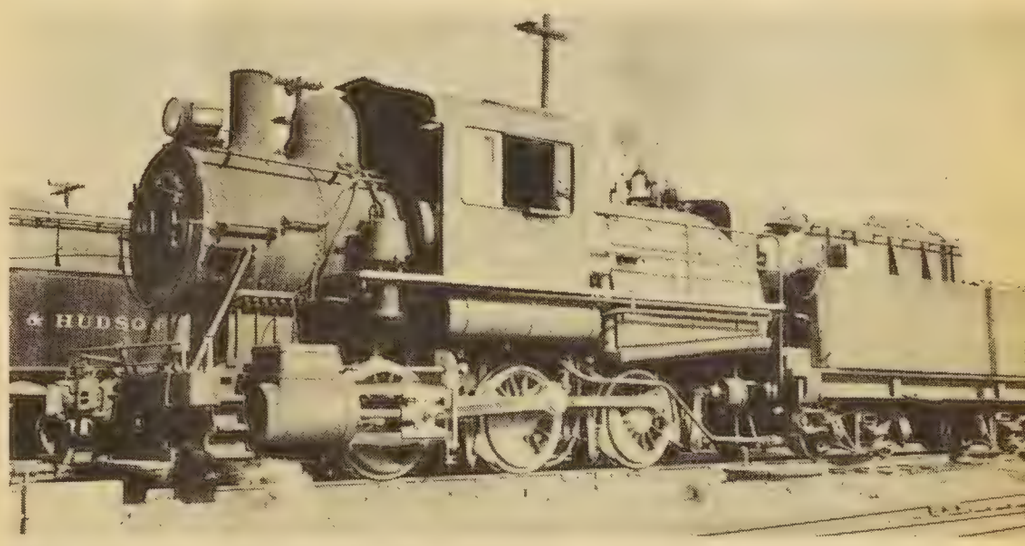
Loree liked the capable E-5's but wanted to enlarge their cylinders. So, from 1912 to 1914 Alco outshopped a revamped version, 42 engines in all. By this time the superheater had proven its worth and was a major new addition. Cylinder diameters rose to 25", thus boosting tractive effort to 56,900 pounds. Subsequently, older E-5's were upgraded to include such improvements.

AT THIS POINT the development of D&H steam power veered away from nation-wide trends. While most

No. 1208, a mighty Class E-6a Consolidation, rolls past Mayfield, Pa., depot.
Charles A. Elston

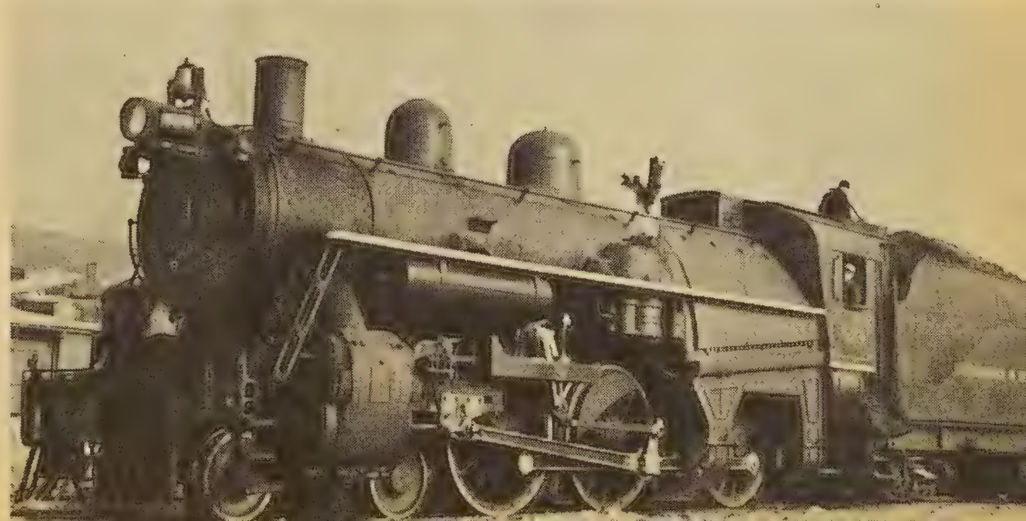


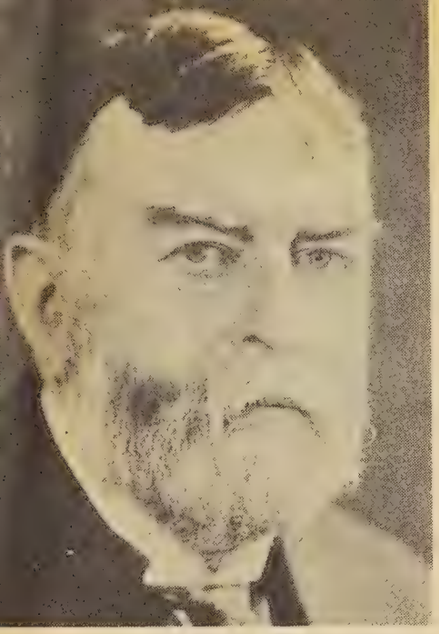
No. 84, Class B-5, 0-8-0, ex-Camelback 2-8-0 (Alco '99), rebuilt 1924 by D&H.
Photo by the author



D&H operated a great many Camelbacks, including six-wheeled goat No. 46, B-4a.
Photo by Walter A. Lucas

Collection of H. K. Vollrath, 2524 Meriwether Rd., Shreveport, La.
This 4-6-0 type, No. 524, Class D-3b, was built by the Colonie Shops in 1905.





(c) Underwood & Underwood

L. F. Loree. (Above) Nos. 1607 and 1611, both Class H, Schenectady 0-8-8-0 Mallets.

major roads were busily replacing or supplementing 2-8-0's with larger types, Loree advocated only Consolidation-size expansion.

From 1916 until 1930 the Alco built 21 huge 2-8-0's while Colonie Shops turned out a dozen of the same. The sheer size and dimensions of these new brutes equaled those of Mikados and Mountains. Just imagine the Alco-built 1200-1220 series of E-6a's with 27x32" cylinders and 67,150 pounds of tractive effort!

Three such engines (one pulling, two pushing) could wrestle 5700 train-weight tons up the 1.46 percent grade out of Wilkes-Barre. The slightly larger D&H-built 1100's usually ran to Binghamton. Their 265 to 300 pounds of steam pressure and Commonwealth cast-steel engine beds, with cylinders cast integral, were part of Loree's ambitious modernization.

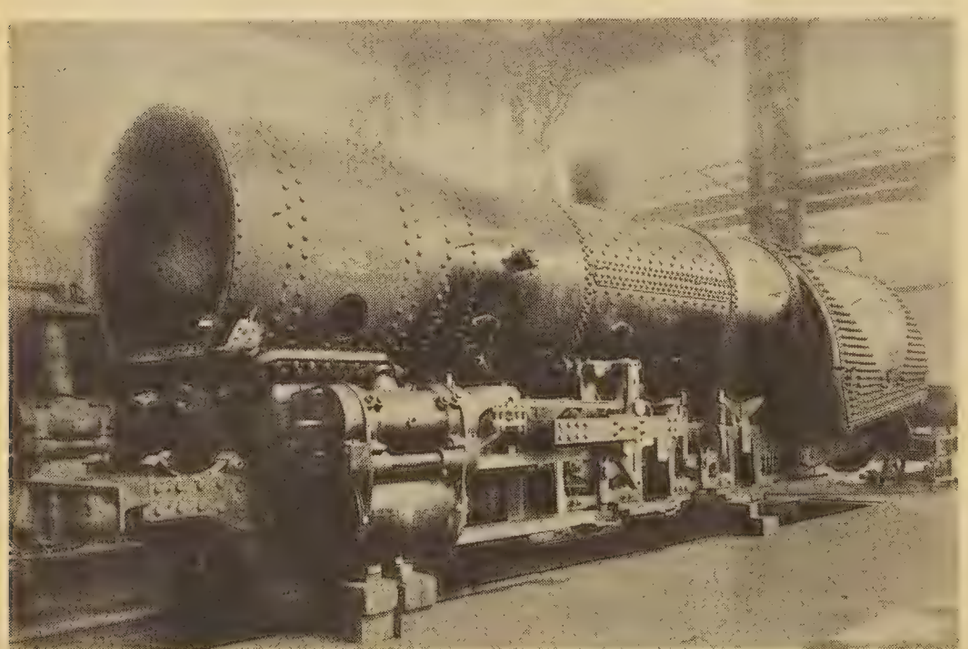
Going back for a moment to J. Louis Colvin, that oldtimer told us about a serious wreck at Jermyn, Pa., in the wartime year of 1918. It involved his 800-series local freight engine and a new 1200 on fast freight. Colvin's head brakeman, a greenhorn, taking bad advice from a crew man on another train, crossed the 800 engine to the opposite mainline track without adequate flag protection.

Well, sir, the fast freight plowed into the peddler with an impact heard for miles. A boxcar sailing through the air "with the greatest of ease" landed atop the 800's cab like a giant cleaver, slicing it off and cruelly injuring the engineer. Colvin himself plummeted down an embankment while wreckage buried one of his brakemen. Nobody died, but the brass collars didn't like the extensive damage done to two locomotives, especially that shiny new 1200.

Over the years, uncounted millions were spent on alluring principles of compounding, which means using the same steam more than once before exhausting it through the stack. D&H made such efforts. Its four remarkable (but unsuccessful) high-pressure compounds were a paradoxical cross between great achievements and Rube Goldberg monstrosities. Consider the following experimentals, all designed by Alco's esteemed consulting engineer, John E. Muhlfeld, and all of them built at Schenectady:

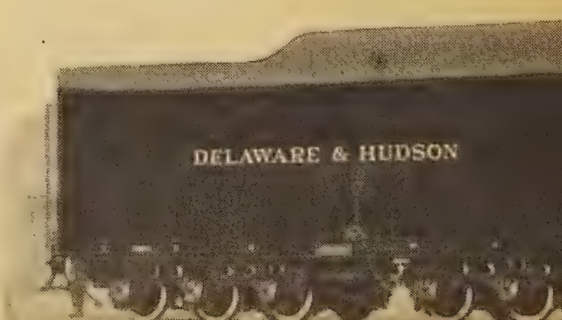
The *Horatio Allen,* No. 1400, built in 1924, pressure 350 pounds; the *John B. Jervis,* No. 1401, built in 1927, pressure 400; the *James Archbald,* No. 1402, built in 1930, pressure 500, and the *L. F. Loree,* No. 1403, built in 1933, pressure 500.

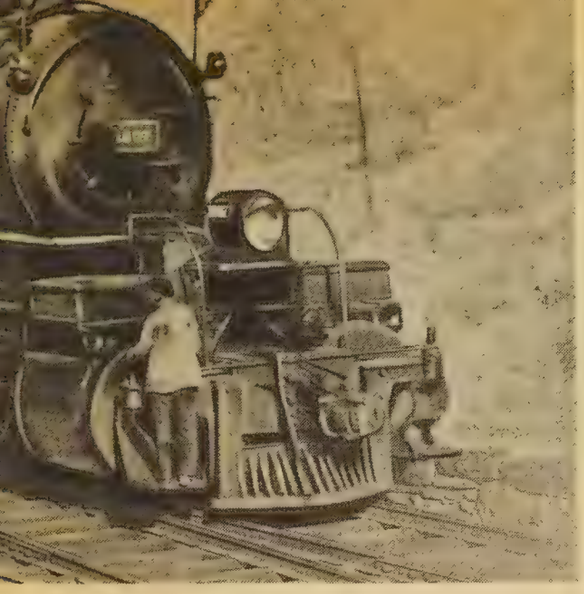
All four had water-tube (fire-tube) boilers and tender boosters. Working simple at speeds under seven miles per



Colonie Shops turned out some great locomotives; here is the boiler of No. 652.
Delaware & Hudson photo

This lean, powerful 4-6-6-4 was one of the first Alco-built locomotives equipped with an all-welded boiler.





Northbound summer-only passenger train crosses Hudson River at Troy, N.Y., via Green Island Bridge. The locomotive is D&H No. 558, Class D-3, a 4-6-0 type.
William D. Middleton, 6929 Doummar Dr., Norfolk 18, Va.

hour, each could attain an almost incredible maximum tractive effort exceeding 100,000 pounds. All four had Dabeg feedwater heaters with mechanical pumps actuated from the crossheads. The first three were 2-8-0's operating on generally similar principles, each having two cylinders, high pressure on the right, low pressure on the left.

No. 1403, a 4-8-0 type, could well be termed the weirdest experimental locomotive built in modern times. Actually, she was the world's first and only four-cylinder, triple-expansion, non-articulated engine. She expanded steam in three stages, first into a high-pressure cylinder under the right side of the cab, then into an intermediate cylinder under the left side of the cab, and finally into two low-pressure cylinders up front. Also, she had rotary cam poppet valves and roller bearings on the main axles as well as the rod bearings.

Although certain of her features flopped, her high-pressure steam and her roller bearings were not only D&H firsts but rank as notable contributions to the development of the steam locomotive. D&H motive-power men liked the tender boosters so much that they equipped about 25 locos with them.

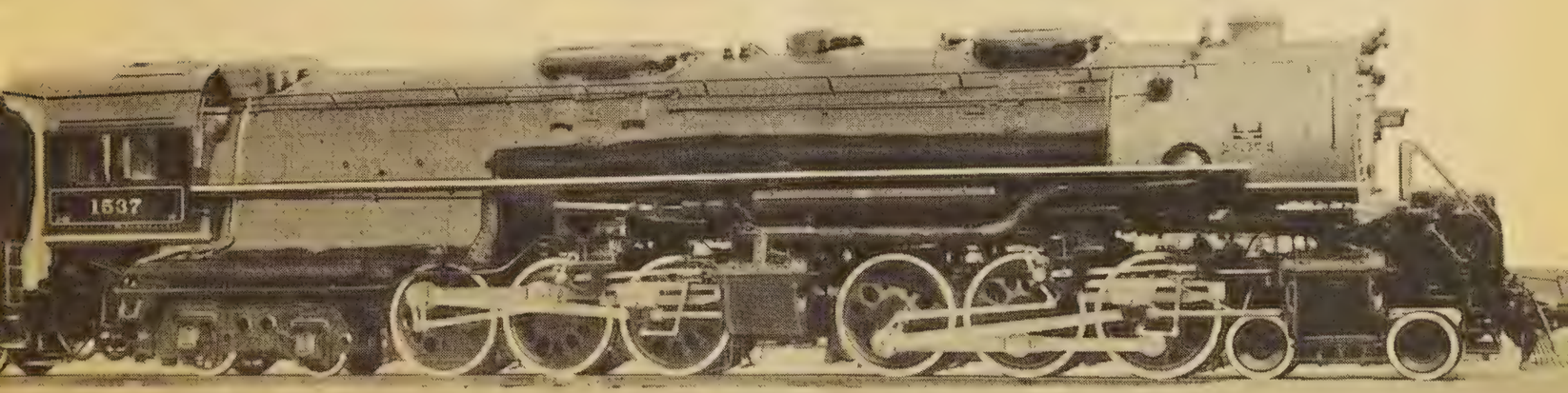
THE THEORY behind these experimentals was greater efficiency through high-pressure steam produced by a relatively small boiler and used in compound form by smaller cylinders. This combination equaled the power of much larger engines at one-third the fuel consumption. The *Horatio Allen* equaled the performance records of Pennsy's big I-1s 2-10-0, which had much larger boiler and cylinders.

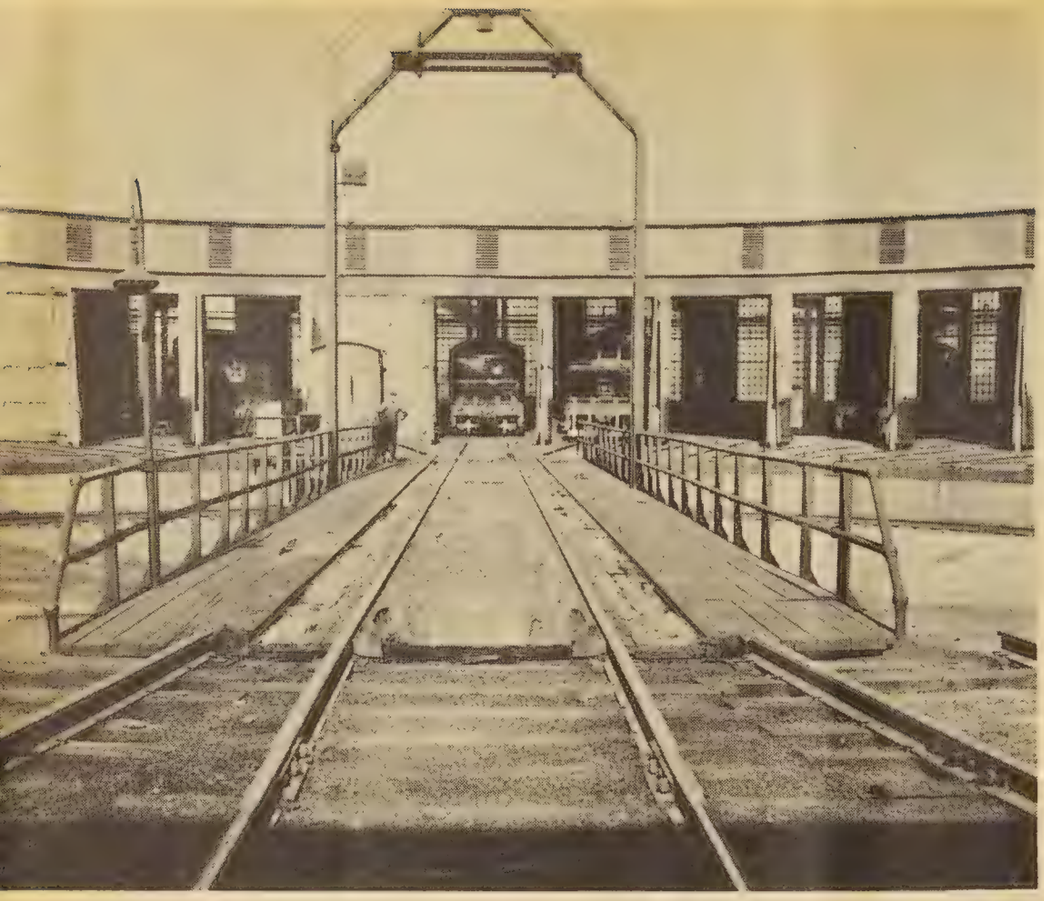
But L. F. Loree's noble experiment failed for several reasons. Those engines were too complicated. The savings they achieved in operation turned into losses when they went into terminals for maintenance work. They were essentially slow-speed, drag-freight power, built at a time when high horsepower and speed had become important. Although their tractive effort was tremendous, the drawbar h.p. left much to be desired. For example, when the 1400 was hauling a 65-car train of 4509 tons up Schoharie Hill at four miles per hour, two knuckles broke and the train parted at the 14th and 58th cars.

A final improvement in the Delaware & Hudson's 2-8-0 came in 1938 when Alco built the world's first all-welded locomotive boiler and the Colonie Shops installed it on the 1219. This was not a high-pressure boiler. Obviously, such a boiler is superior to the usual riveted kind in greater strength with weight reduction, absence of leaks, and the need for less maintenance. No. 1219 also got a complete face-lifting externally, with an English-style cab.

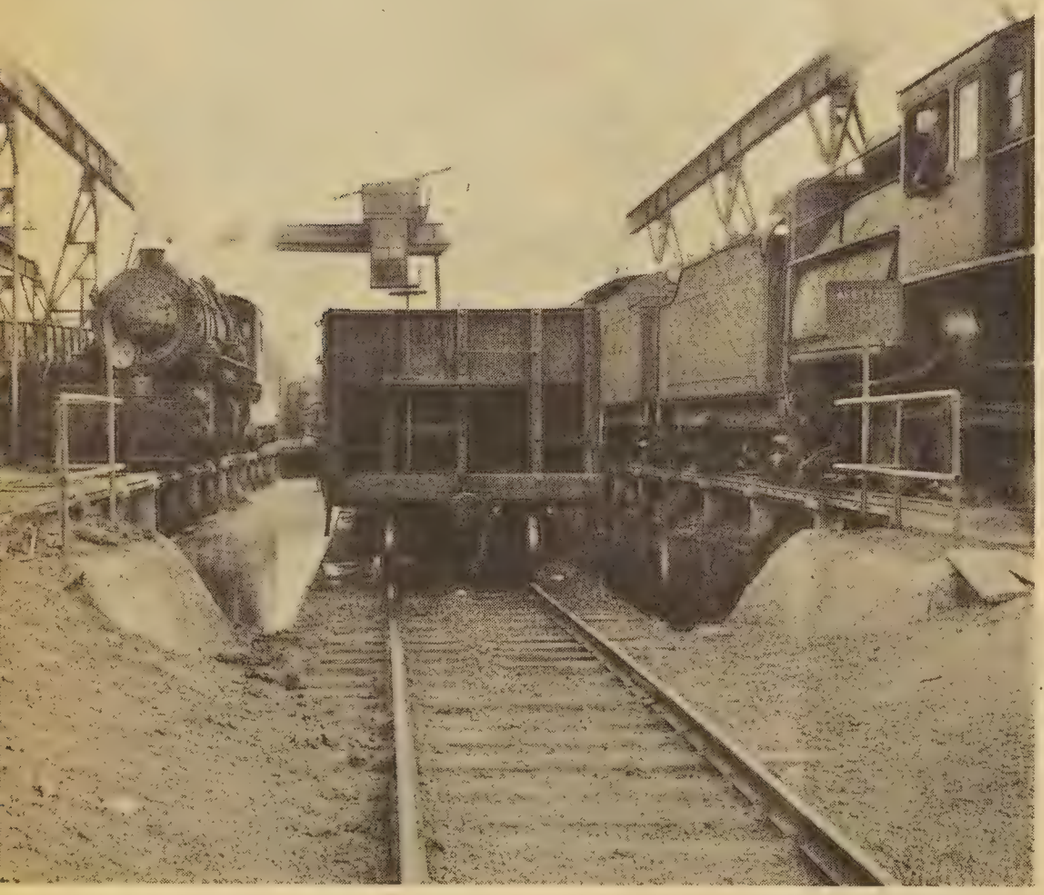
After about five years of close surveillance by the railroad itself, the builder, and Federal inspectors, the welded boiler was approved and several roads began using them, including the D&H on one of its 4-6-6-4's built in 1946.

Although the Colonie Shops played only a minor role in new construction, they rebuilt many engines. During the 1920's and '30's, Mr. Loree sponsored





(Above) View of the turntable at the Delaware & Hudson's Colonie enginehouse, showing guard rail, as it looked in 1929. Some of America's finest steam power rolled over it. (Below) View of Oneonta, N.Y., yard in 1922, showing ash pits.



Delaware & Hudson photos

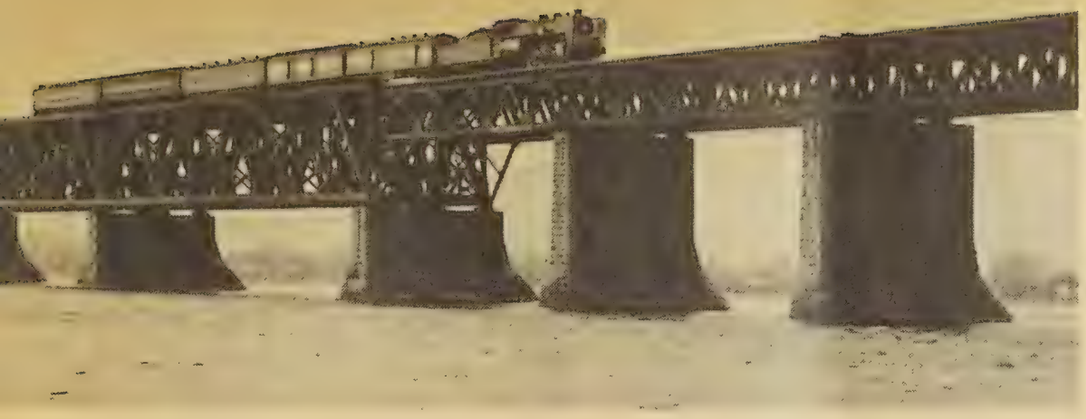
a vast rejuvenation program that eliminated most of the road's Camelbacks and upgraded power generally, giving it a new clean styling. Camelback rebuilding was imperative. The hazards of center-cab operation are well-known.

Back in 1922, one 4-6-0 break-in Camelback was pulling a passenger extra near Archbald, Pa. Back in one of the coaches, Conductor Colvin heard what seemed to be an unusual roaring sound on the engine. Playing it safe, he signaled a stop. The train didn't even slow down, but an emergency air application quickly halted it.

Running up ahead, Colvin found a broken water glass spewing live steam and hot water into the cab. The engineer, scared and scalded, was crouching helplessly on the pilot. The poor fellow was probably too unnerved or too badly scalded to turn the angle cock. Meanwhile, in the rear cab, the fireman was working as usual and did not know that anything had gone wrong.

Colonie rebuilds and conversions produced a new look of smooth, sleek power. The Wootten fireboxes remained, but new cabs, outside boiler jackets, and new tenders were numerous. Most of the former Camelbacks were easily recognizable by their two domes set close together near the front end. It is said that after a trip to Europe, L. F. Loree liked what he saw over there. His own D&H power was influenced by foreign designs.

Until the 4-8-4's with their mighty 75″ driving wheels came in 1943, the road's largest passenger driving wheels had a diamater of only 73″. This size provided the necessary pulling power for mountain terrain. The modest stable of ten Pacifics built by Alco in 1914 had only a slight claim to beauty until Colonie stylists gave them a smoke-deflectored English motif. These Pacifics handled most mainline trains between Binghamton, Albany, and Montreal.



D&H local train No. 7, engine 607, 4-6-2 (Schenectady, '14) is crossing CPR LaSalle Bridge into Windsor Station of Montreal, Canada.
Dr. Philip R. Hastings

MORE notable 4-6-2's were built new at Colonie between 1929 and '31 and numbered 651-653. These initiated the foreign look. No. 653 was the largest, having 22x32" cylinders, 325 pounds of pressure, and 59,500 pounds of tractive effort, and equipped with rotary cam poppet valves. Although not a compound, this type's design resembled the concepts being built into D&H power at that time.

Boilers from three sizes of Camelback 2-8-0's helped to create a new fleet of 31 smart end-cab 0-8-0 switchers. Many other center-cab Consolidations were given end cabs, some with new underframes and piston-valve cylinders. Even small passenger power, 4-4-0's and 4-6-0's, got the full treatment and rearward cab placements.

Few D&H engines escaped Loree's power fashioners. Even end-cab jobs got upgraded. Compound 0-8-8-0 pushers, built by Alco in 1910-'13, really became distinctive, with one-piece Commonwealth cast-steel engine beds, smooth boilers, English cabs, and new tenders. Working simple, they rated a whopping 144,100 pounds of tractive effort—a figure not generally noticed by comparers of powerful locomotives.

The end of Loree's 31-year tenure put Joseph H. Nuelle in the chief executive's chair. With an eye to the future, Nuelle quickly cancelled Loree's basic motive-power policies. He discarded the Wootten firebox, low-horsepower drag-freight concepts, and 2-8-0-type thinking. Under his direction, Alco's finest high-hp. 4-6-6-4's arrived *en masse*, and in 1943 fifteen superb dual-service 4-8-4's were added. D&H became a changed railroad. The men welcomed the new power.

As we have stated, the first Delaware & Hudson steam engine was built in England in 1829, the last one at Schenectady in 1946. For a richly fruitful period of 117 years, that breed of iron horses came out of erecting shops to burnish the rails.

The D&H steam era lingered a few years more. In 1920 the road boasted 490 steamers, 75 percent of them 2-8-0's. By 1951 it had only 233 steamers and already 100 diesels. The era ended Jan. 5, 1952, for eight commuter trains on the 16-mile route between Scranton and Carbondate. These trains consisted of wooden-bodied, open-platformed coaches equipped with roller bearings and pulled mostly by 4-6-0's, occasionally by 4-4-0's. Unsentimental enginemen disliked the Eight-wheelers because they were too light and often slipped.

Regular Delaware & Hudson steam service ended July 17, 1953, when No. 302 pulled the *Montreal Limited* from Montreal to Albany.

Except for the die-hard old heads, there was joy among D&H employees when the road finally terminated its 124 years of steam operation. But we didn't rejoice. We have a warm personal remembrance of most of the D&H classes of steamers and we think they all were beautiful. ●

One of the *Laurentian's* last steam runs, northbound with No. 307, 4-8-4.
R. Tobey (Rail Photo Service, 93 Massachusetts Ave., Boston, Mass.)

Delaware & Hudson photo
Delaware & Hudson power parade: enginehouse and yard at Oneonta 28 years ago.

INFORMATION BOOTH

ASK BARBARA: Railroad questions are answered here by our research expert—as many as space permits. Top priority is given to subjects of general interest. Address Miss Barbara Kreimer, *Railroad Magazine*, 205 E. 42nd Street, New York 17, N. Y. No replies will be sent by mail.

1 (a) *I believe the longest stretch of straight track is on Australia's Transcontinental Railway, 328 miles across the Nullarbor plain, but what is the second longest?* (b) *Longest in U.S.?*

(a) We have no information about the very long stretches of railway built recently through Siberia and through China. However, on the basis of available data, the world's second longest piece of straight track is the 205 miles between Junin and McKenna on the General San Martin Railway in Argentina. (b) The longest trackage without a curve in the United States in the Seaboard Air Line's 79 miles between Wilmington and Hamlet, N.C.

2 *What happened to the* Aerotrain *that was being tested years ago?*

Actually, two *Aerotrains* were demonstrated by General Motors, Electro Motive Division. Both now belong to the Rock Island. When and if used, they operate in Chicago-Joliet service.

3 (a) *Could railroad weed-burners melt snow and ice in winter?* (b) *Is there an icebreaker on rails?*

(a) Yes; some of them serve that purpose. (b) Yes, a few. A better term would be icicle-smasher. They are used in tunnels. We pictured and described one on the Clinchfield some time ago. The Western Maryland has an icicle-smasher consisting of a stripped-down boxcar equipped with a steel scraper bulkhead and ballasted with 45 tons of stone. It is put at the head end of automobile piggyback trains, just behind the locomotive, to scrape tunnel roofs clear.

4 *A GI just back from Japan says it is standard practice on Japanese trains for men and women—total strangers—to share the same berths. Is that true?*

Yes, sometimes. Japanese sleeping-car space is usually assigned to Asiatics without regard to sex, but this practice does not apply to American or European travelers unless they are married or presumed to be married.

5 (a) *How often does the Nickel Plate renumber its diesels?* (b) *Does it have more than one diesel with the same number?*

(a) NKP has never had a general renumbering but does renumber one or more diesels on occasions. (b) No.

6 *When did railway operation begin in England?*

There were crude coal-mine railways—push-cars on rails—in that area during the Roman occupation, 2nd century A.D. The world's first common-carrier freight railway, the Surrey Iron Railway, was incorporated May 21, 1801, and was opened from Wandsworth to Croydon, England, on July 26, 1803. Meanwhile, on March 24, 1803, Vivian and Trevithick patented a steam locomotive. The Oystermouth Tramroad Company, the first railway to carry fare-paying passengers, was incorporated June 29, 1804, opened in 1806.

7 *I vaguely recall poem about Beverly curve. Do you have a copy?*

Yes, indeed. Charles M. Smith, an old Pennsy engineer, died on Labor Day, 1932. As specified in his will, his body was cremated and his ashes were scattered "at the close of the day" (Jan. 12, 1933) from the cab window of the last engine on which he pulled a throttle, No. 8512, a Consolidation type, at Beverly curve on the Panhandle right-of-way. "That curve," he used to say, "is the most beautiful spot I know." Beverly curve is just north of 87th Street, Chicago, but the poet, Ty Price, used his imagination in depicting the countryside. Here is "Beverly Curve."

The Beverly curve is long and smooth;
Where west the steel rails run
Past a brawling spring toward a wooded ridge
In the glow of the dying sun.
And every night as we swung the bend
In the cab of the Limited's mill,
We watched the farm lights flashing by
In the woods of the tree-crowned hill.

In summer time on Beverly curve
When we reached the babbling spring
Charlie would shut off the roaring steam
Just to hear the crickets sing.
Each night for twenty years and more
He shut her off at the bridge
When we rushed along the Beverly curve
And whirred up toward the ridge.

He liked that sight, and he liked his job,
And many a time he'd say:
"That curve is the prettiest spot on earth
At the close of a perfect day."
Sure enough, when Charlie had passed,
The lawyer read in his will:
"Scatter my ashes from out the cab
Of an engine on Beverly hill."

And so at dusk when we hit the curve
And roared through the wintry land
I leaned far out from the tender steps
With a steel box in my hand.
I clung in the gangway with the box
And as we came to the spring
The hogger quietly shut her off
Where the crickets used to sing.

Charlie's ashes were strewn on the wind,
And the engine bellowed again
As she stormed ahead up Beverly slope
On the old Panhandle main.
Sure, I'm only a grimy tallowpot
Who shovels the coal all day
In the shaking cab of a passenger mill,
And I haven't much to say.

But when I ride the Beverly curve
And we tear up toward the ridge
I remember Charlie and how he used
To shut her off at the bridge.
And whenever a job doesn't go right
Or I need a lot of nerve
I think of the pal whose ashes lie
Scattered on Beverly curve.

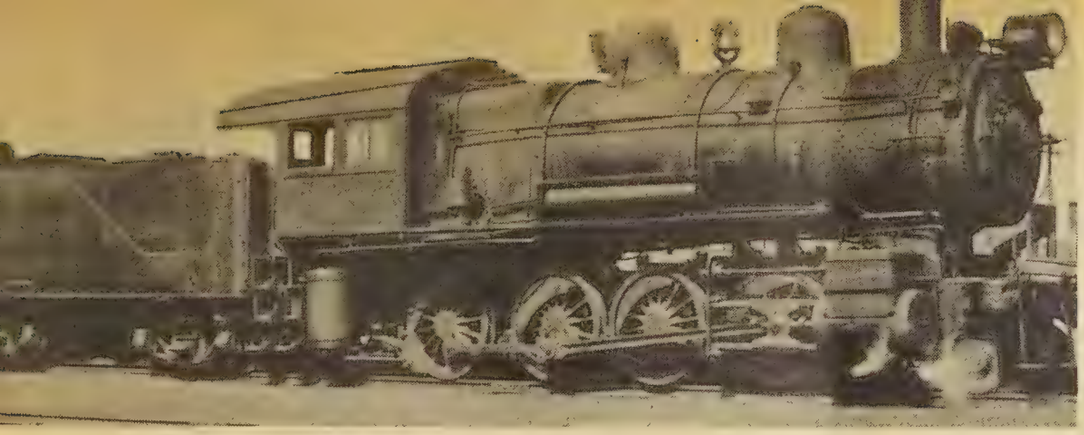
8 *What is the story of Pennsy engine 6200, pictured in Dec. '62 issue?*

She was the only direct-drive steam turbine ever built. Baldwin-Westinghouse built her in 1944 as an experimental high-speed passenger or freight hauler. Reduction gears and spring cups transmitted the turbine's motion directly to two center pairs of driving wheels, which in turn were connected to the other drivers by side rods. The 6900-hp behemoth handled mostly fast passenger runs between Chicago and Crestline, Ohio. At high speed her fuel and steam economy were phenomenal, but turbine maintenance and high operating costs forced her off the rails.

This data comes from Bert Pennypacker, *Railroad Magazine* writer, who co-authored the new 320-page book, *Pennsy Power*, published by Alvin F. Staufer, Rt. 4, Box 145, Medina, Ohio.

9 *Recently I saw a boxcar labeled "The Sole Leather Line." Explain.*

The car you saw is one of 230 or so owned or leased by "WAG," the Wellsville, Addison & Galeton Railroad. This road hauls considerable finished leather as well as bark for tanneries, including Elkland Leather Co., described as the world's largest tannery, at Elkland, Pa. It is 77½ miles long.



Engr. Smith's ashes were strewn on Beverly Curve from the cab of Pennsy 8512, Class H-6a, which looked exactly like No. 228, shown here. This class was the largest group of identical locomotives ever built, approximately 1,240 of them.
Collection of J. M. Prophet III, 55 Meadow Rd., Buffalo 16, N.Y.

10 *Tell me about the "Peg Leg" railroad of Waterport, N.Y., around 1890.*

A man named Spencer invented and built a monorail-type locomotive. He then sold farmers in Orleans County, N.Y., on the idea of laying a single rail for it for three miles from Waterport, on the Rome, Watertown & Ogdensburg Railroad, to Lakeside, a summer resort on Lake Ontario. The farmers bought stock in his company because he claimed that his new low-cost method of transportation would soon sweep the Nation, meanwhile earning profits for its investors.

They started work in a cow pasture, spiking the Peg Leg's first rail into place with fanfare and a barbecue. A few days later they extended the track to 500 yards. Thereupon Spencer produced his weird-looking locomotive. Willing hands set her on the rail between two passenger platforms, which held her upright while standing still.

The engine operated with steam power supplied to both driving wheels and a peculiar balance wheel mounted horizontally under the deck. This balance wheel, like a gyroscope, was intended to hold the contraption upright while in motion. Bench seats for a dozen passengers ranged along each side of the engine, facing outward. Stockholders were so eager for the first run, hoping to sell more stock as a result, that they built a second pair of loading platforms, at the other end of the 500 yards, without waiting to complete the line to Lakeside.

Twelve brave men seated themselves. Spencer took the throttle. The vehicle lunged forward with a screeching roar and much vibration, listed badly before she covered 250 yards, and fell on her side. Everybody jumped off safely. But the line folded up shortly afterward.

Running Extra

Our February item 7 said we didn't know of any train having been struck by lightning. One such instance is cited by Kramer A. Adams, author of an important book, *Logging Railroads of the West* (Superior Publishing Co., Box 1710, Seattle 11, Wash.) Page 11 of this book notes that on June 28, 1912, lightning struck a West Oregon Lumber Co. train powered by a Climax at Clatskanie, Ore., killing the engine crew.

Peter Campagna and Paul Berton quote from William F. Helmer's book, *Ontario & Western*, page 39, an incident that occurred near Walton, N.Y., in 1876:

> Engineer Cal Sanford found himself assaulted by wind, rain, and hail. The surrounding hills echoed the frequent peals of thunder. Lightning streaked through the skies. These rendered the laboring locomotive noises almost soundless and the combined headlamp and firebox glow nearly unnoticeable. One brilliant yellow bolt fastened itself momentarily to the smokestack, enveloping the engine in a sheet of blinding flame. Sanford shut off steam and stared in horror as his driving wheels turned into a fireworks display. Iron pinwheels thowing off multi-colored sparks. The phenomenon lasted but a few moments; the shaken engine crew would never forget it.

Now we hear from retired engineman Bert Fullman, 527 Josephine St., Denver, Colo.: "I was pulling a drag freight eastbound one rainy summer day on the Moffat Road (now D&RGW). After the rain ceased, we stopped. My fireman (Joe Otto) and I got down from the cab and sat on a tie, listening to thunder and watching the lightning. I smelled hot metal. Climbing back onto the engine, I saw a jagged hole in the cab roof. Lightning caused it."

Item 13 in our February department said H. K. Porter built the first known "fireless cooker" in 1915. This is denied by C. H. Blackburn, P.O. Box 42, Palm City, Fla. "In either 1909 or '10," he writes, "while working for Lima Locomotive Co. as a lathe hand making parts for Shays and direct-connected engines, I saw a fireless locomotive built, tested, and sent on her way to National Cash Register Co., Dayton, Ohio. Whether or not this was the very first one I don't know."

"An ice hockey team in the Eastern Hockey League is called the Nashville Dixie Flyers, from the Louisville & Nashville train at that name," writes Howard V. Bedwell, Jr., 45 Madison Ave., Mt. Holly, N.J. "Who knows of any other team in any sport that is named for a train?"

Clifton Hull, 203 E. 16th St., North Little Rock, Ark., wants histories of the Rumford Falls & Rangely Lakes, the New Orleans, Ft. Joseph & Grand Isle, and the Deadwood Central.

Regarding our February item 3, Michael Glikin, Union, N.J., writes: "One of the two 2-8-0's that the Lehigh & New England sold to the Rahway Valley escaped the blow-torch and is now running, still as No. 15 on the Monadnock, Steamtown & Northern, Nelson Blunt's tourist road in New Hampshire. Two GE 70-ton diesels are operating the RV."

Our February item 5 defined "yellow flag." Some roads use a different definition. For example, D. Stanley Decker, Boston & Maine train director, 34 Marland Rd., Worcester 6, Mass., quotes rule 26-B in the B&Mrule book:

> A yellow signal displayed at one or both ends of a car indicates occupied boarding car. Foreman in charge of boarding cars must see that they are protected by displaying a portable derail with a yellow banner, locked in derailing position with a switch lock, or a double-staff yellow flag by day, and in addition a yellow light by night, at one end or both ends as may be required, and the same employe is alone authorized to remove them, except when other equipment is placed ahead of boarding cars, or when equipment so placed is removed, the conductor will be responsible for proper display of signals and must notify occupants before the cars are moved.
>
> When boarding cars are placed on any track, the switches must, if practicable, be lined and locked for a track other than the track on which boarding cars are standing.

B&M uses a yellow flag also for cabooses when crews are sleeping inside. The meanings of red, green, and white lamps and flags are well known. As for blue, Mr. Decker quotes B&M rule 26:

> A blue signal, displayed at one or both ends of an engine, car or train, indicates that workmen are under or about it; when thus protected it must not be coupled to or moved. Each class of workmen will display the blue signals and the same workmen are alone authorized to remove them. Other equipment must not be placed on the same track so as to intercept the view of the blue signals, without first notifying the workmen.

Hervey Angier, Southern Pacific engineman, Los Angeles, Calif., cites 7-a in the SP rule book: "Yellow signals and unattended red flags and red lights must be placed to the right of track in direction of approach." And 7-b: "Yellow indication: Proceed at reduced speed and for other uses prescribed by the rules." Finally, this from 10-h:

> A yellow flag by day and a yellow light by nite may be displayed on speed sign post to direct attention to figures on speed sign, and will not considered a yellow signal as prescribed by this rule.

Incidentally, reports R. B. Parsons, Arvada, Colo., the Missouri Pacific has done away with conventional markers on trains, replacing them with single electric lights which must show red to the rear between sunset and sunrise and at any other time day signals cannot be seen plainly.

IT WAS 8:44 p.m. of June 30th, 1962. The off-duty power director, Bert Cummings, was explaining to one of the men that the only thing needed now was final word from Roanoke that the "rectifier" on the last run was dead. Then the phone rang.

"That's him now," said Bert.

The second-trick power director, C. C. Linkenhoker, seated at his desk, picked up the receiver and then announced in a bass voice over the idle chatter of the men: "Okay, the engineer is in the yard office and the engine is reported secured." So that was it!

Silence followed. Linkenhoker pushed back his chair, went to the main control panel, and began the final task of cutting off numerous switches. Four minutes later all "juice" outside the powerhouse at Narrows, Va., was gone. Thus ended the 134-mile stretch of railway electrification that extended between Roanoke, Va., and Mullens, deep in the coal-laden mountains of West Virginia.

Let us go back now and re-live the high spots of electric operation from the beginning of the Virginian Railway electrification in 1924 to the shutdown.

The story began when officials of the young, aggressive Virginian got tired of the slow drag service being delivered by their new USRA 2-8-8-2 Mallet compounds and the huge 2-10-10-2's. And besides, engine crews were being suffocated by the exhausts of acrid coal smoke in such tunnels as Micajah and Clarks Gap, east of Elmore on Clarks Gap Mountain, and the mile-long Allegheny bore, down at Merrimac, Va. (Late in steam days, Allegheny Tunnel

In 1955 the Virginian ordered a dozen rectifier-type GE locomotives (one shown here) to wheel heavy low-speed freight trains.

Before the Wires Came Down

The Story of Virginian Electrification

by LLOYD D. LEWIS

was equipped with a costly blower system to cut down on smoke, but its dawdling speed limit of 8 miles per hour was responsible for engine crews getting throat and lung ailments.)

Then in the spring of 1923 the Virginian's board of directors ordered electrification of the 134 miles of mainline between Roanoke and Mullens "for the better and more economical handling of the increasing coal tonnage," as an annual report put it.

Steam was doomed there, after assaulting Clarks Gap's 2.07 percent grade for 14 years and leading the loaded hoppers down the eastern slope all the way into Roanoke. However, the big steamers from the halls of Alco were granted a three-year reprieve until September, 1926, when full-scale electric operations began.

A pre-juice history of those 134 mountainous miles reflects a lively panorama of motive power. Various classes of Consolidations, Mikados, large and small articulateds, one of the very few successful blocks of 2-10-10-2's, and even the biggest of the big, a 2-8-8-8-4 patterned after Erie's *Matt H. Shay,* gave all they had to the 13.5 winding miles of Clarks Gap. But this wasn't enough to appease the Virginian management which, of course, wanted more coal faster.

EVEN with a mammoth 2-8-8-2 pulling and two 20-drivered Goliaths pushing, 6000 tons of high-grade West Virginian bituminous couldn't do better than 7 m.p.h. upgrade from Elmore. The brass collars reasoned that if this tough ridge could be tamed with pushers, allowing trains to run at better speed, the remaining 100-odd miles into the Roanoke yards could be covered in good time with one engine. Electrification, in those days, seemed to be the only alternative.

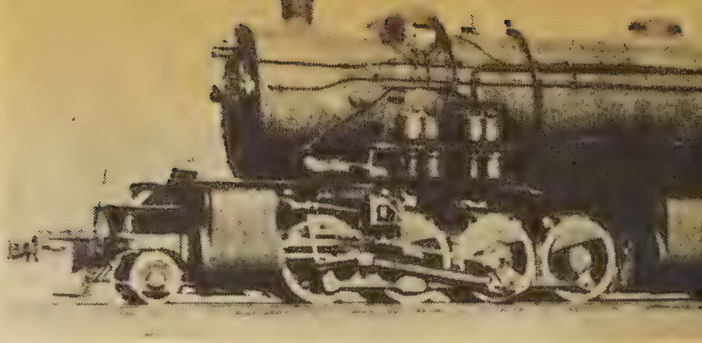
But it wasn't that simple. Although the Virginian was always trying something new to please its customers, the officials spent some time studying the advantages and disadvantages of this relatively new form of rail motive power. The road, only 16 years old in 1923, was already pulling in money head over fist, with a net income of over $3½ million that year. At length, their minds were made up.

American Locomotive Co. at Schenectady, N. Y., was chosen to build cabs and frames for new locomotives, which Westinghouse Electric & Manufacturing Co. of East Pittsburgh, Pa., would outfit with electrical equipment, besides providing such essentials as powerhouse apparatus. Catenary and transmission lines were designed and constructed by Gibbs & Hill, Inc.

In 1923 and 1924 major contracts were signed for materials and construction of the huge steam-generating power plant at Narrows, the catenary and transmission lines, and the necessary equipment, including locomotives.

Located in the town of Narrows on New River, about midway between Roanoke and Mullens, was the heart of the great electric system, the Virginian-owned power plant. Built by Gibbs & Hill, the New York firm of consulting engineers which had the responsibility of setting up the entire electrification project, its purpose was to produce the 11,000-volt, single-phase, 25-cycle alternating current necessary to run the locomotives.

The town buzzed with activity. Men to be trained by the Gibbs & Hill people came from all parts of the country. Among them was young, ambitious Chester Clinton Linkenhoker, who arrived from Roanoke with his wife at the little Narrows station on the cold, bleak December 2, 1924. The next day he went to work. When the plant was officially turned over to the Virginian at 12:01 a.m. on November 16, 1925, "Link" worked the first shift as a turbine operator, not knowing the im-



Collection of H. K. Vollrath, 2524 Meriwether Rd., Shreveport, La.

(Left) No. 225, ex-125, EL-2A, was built by Alco-GE. (Middle) Before electrifying, VGN used 2-8-8-8-4 Baldwins such as this Class X-A giant on coal drags in the mountains. (Right) Virginia EL-2B makes herself at home on Norfolk & Western.

portant role he was to play on the last shift in 1962.

Like Rome, the huge 50,000 kw plant was not built in a day. A steady steam of flats and other freight cars poured into Narrows with heavy machinery, including five monstrous Springfield boilers, four Westinghouse 12,500 kw steam turbine-generators, and auxiliary equipment. Because of size and weight limitations involved in transportation, almost everything was assembled inside the skeleton of the large red brick building.

WHAT made the electrification tick? Of course, the main item was the Narrows facility which generated the electricity. Other than that, the distribution apparatus and locomotives completed the setup.

The 11,000 volts produced inside were raised to 88,000 by the step-up transformer station outside the south wall of the power plant. Cross-country transmission lines, similar to those of public-utility power companies, took the current to seven outlying substations along the railroad right-of-way, which were directly connected to the overhead catenary system. From the catenary wire the locomotives got their power by means of pantographs.

Every precaution was taken to protect employees and the public. Safeguards on all bridges, thorough insulation, sectionalizing the lines so they could be "killed" in emergencies, and all kinds of safety indicators in the powerhouse proved their worth in the years to come. The Virginian was careful. Even so, five men were killed during construction of the powerhouse.

In 1928 an 88,000-volt transmission tie line was built between the Matoaka tie station and the Norfolk & Western's Bluestone, W. Va., power plant so that each railroad company could provide energy to the other one in an emergency that cut off power.

(The N&W had realized the benefit of electrification back in 1914, when it installed catenary between Bluefield and Iaeger, W. Va., on the Pocahontas Division).

Also, a direct telephone line was hooked up between Narrows and Bluestone so that the experienced general foreman, Cleve Bowser, and his men could confer with the N&W staff about power regulation during peak periods of traffic.

All this construction was costly. Excluding locomotives, the total initial investment was something over $11½ million.

The men of Alco-Westinghouse built a locomotive so large and powerful that it shocked the financial world. Originally, there were to have been 12 three-unit engines in order S-1458, but several changes in operating procedure dictated that two of these would be split up into six single units for use on local freights. Building dates were monthly, beginning in April, 1925, with the 100.

Starting tractive power of the EL-3A's at 30.07 percent adhesion was 277,500 pounds and of the single-unit EL-1A's at 29.90 percent adhesion 92,500 pounds. The greatest horsepower supply on an EL-1A was 2375 and on an EL-3A it was 7125. One three-unit job weighed in at a tremendous 1,282,380 pounds.

These first "juice jacks" in actual operation reminded you somewhat of steamers. Each unit had both a leading and a trailing truck, and in between were eight driving wheels connected to jack wheels that never touched the rails. The method of drive was described as "flexible gears, jack shaft, and side rods." And the way they swayed on their 61" drivers when moving down the track at a good clip really recalled steam days.

INCIDENTALLY, the EL's were some of the first locos to employ regenerative braking. Developed by Westinghouse research, their power was returned to the trolley and thence to Narrows when the long drags descended grades. The motors became generators and thus saved air brakes and hot wheels. The steam replacements, termed "squareheads" and "flatnoses" by crews and non-operating men alike, cost $5 million. They had only two operational speeds, 14 and 28 m.p.h., with a maximum of 38 safe speed of 38 m.p.h. on descending grades.

Everything was ready. The Narrows powerhouse, brand new, had been fired up for the first time in 1925. The staff was ready to take on full-scale operation. And about mid-year they did just that.

At first only three-unit road engines wheeled the trains. But as soon as the "bugs" had been worked out, pushers were added. All-electric operation from Mullens up to Clarks Gap began September 14, 1925, and was extended to Princeton on October first.

The Mullens - Roanoke operation went somewhat like this: 6000 tons of coal were coupled behind a three-unit loco at the east end of Elmore Yard and a pusher was cut in ahead of the wooden caboose for the 13.5-mile, 14-m.p.h. climb to Algonquin. Here at the top of Clarks Gap Mountain the caboose cut off "on the fly," stopping near the west end of the old American crossover. The rest of the train braked to a halt with the head end at the east end of Clarks Gap Yard.

The road engine cut off and pulled 3000 more tons of coal out of the yard, brought up earlier by a hill run, and proceeded east to Roanoke with 9000 tons at 28 m.p.h. Meanwhile, the pusher returned light to Elmore.

This operation worked smoothly. It pleased just about everybody except one forgetful engineman. After picking up at the Gap, that hogger left the main part of his train standing on the eastbound main and took off for Roan-

Photo by Sy Reich

oke. The dispatcher then called the Kegley operator, 16 miles down the line, who flagged the "train" and sent the harrassed engineman back for his conductor.

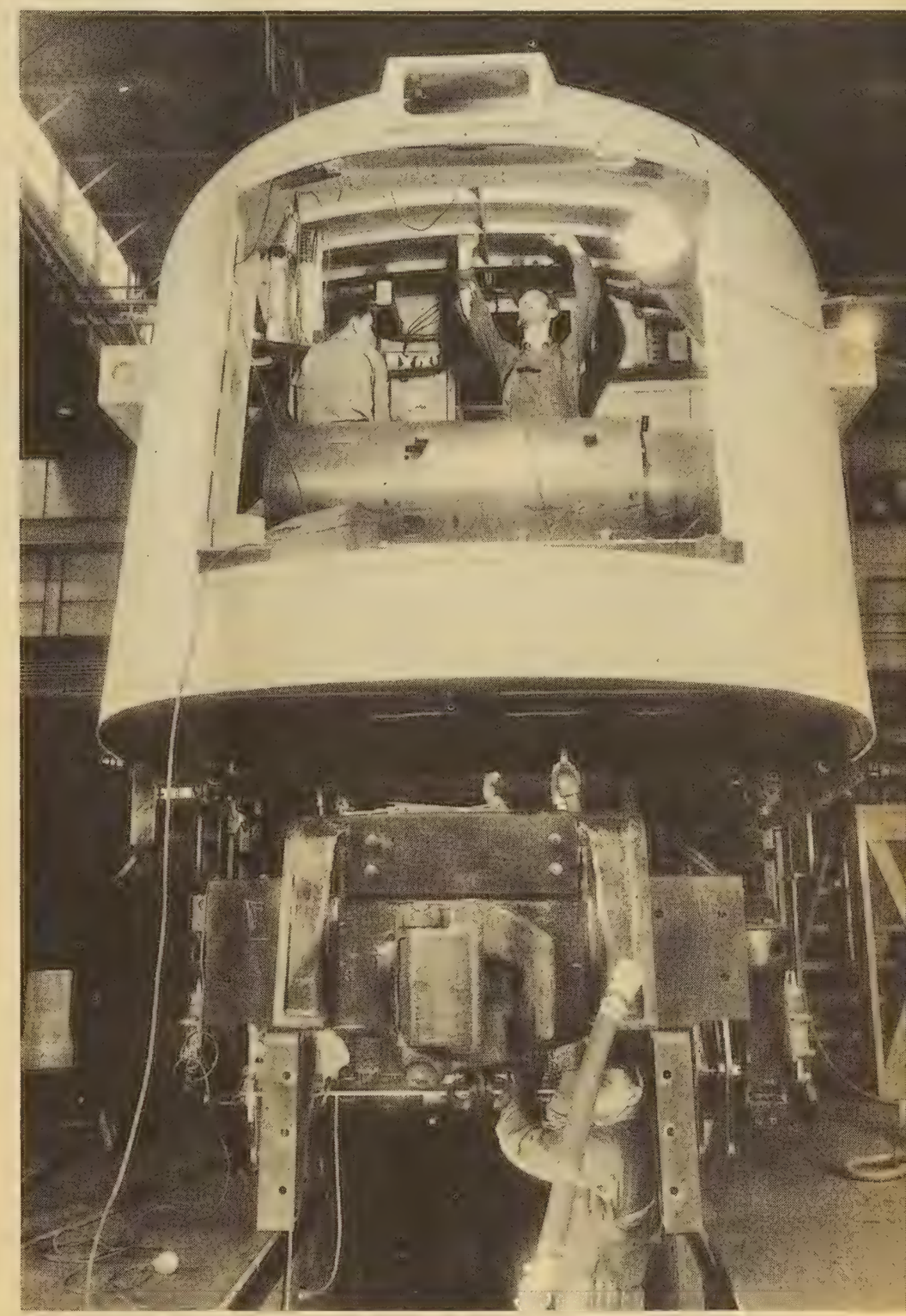
The three-track Mullens "motor barn"—later converted to all-diesel repairs—was one of the few shops specially built and designed for the maintenance and repair of railway motors. The one-track inspection pit at Roanoke gave only light repairs to electric equipment. It fell into disuse after the N&W merger in 1959 and was razed two years later.

Virginian men took unabashed pride in their electrics, but the neighboring electric-power utility companies didn't. Those companies resented the noise interference on their communication lines caused by the alternating-current type of locomotion. Soon after the rails had been electrified, they filed a court action against the railroad. Incidents such as this were recalled:

Down at Rock, W. Va., the eastbound tonnage trains behind three electric units got up to about their maximum speed of 38 m.p.h. because of the enginemen's understandable desire to get a good start on Rock Hill's .5 percent grade while still descending the 1.21 eastern slope of Clarks Gap. And Rock sat on the very bottom of the valley floor. Well, those old country wall telephones just couldn't take it. They rang continuously from the time a train came into view until he was way out of sight.

THE COAL business boomed. From less than a million tons in 1910 to nearly 13 million in 1940, the "black diamonds" found their way to the sea at Norfolk. Now the Narrows plant needed a shot in the arm. So, in 1946 a five-year program of rehabilitation and addition was begun.

Included were the installation of a new Foster-Wheeler boiler and a General Electric 10,000-kw, 25-cycle turbine-generator to increase the over-all capacity of the plant 25 percent. In



Huge size of VGN "rectifiers" is indicated in this view of workmen installing equipment in the nose section of one under construction at General Electric's works in Erie, Pa. Each big unit is rated at 3300 hp and has a maximum operating speed of 65 miles per hour and a maximum tractive force of 98,500 pounds.

addition, a large, black, box-shaped affair, nicknamed the "penthouse," was placed up on the roof to hold more electrical equipment. Total cost was about $5,500,000.

With the powerhouse rejuvenated, the squareheads began to show their age. After all, they were only supposed to be capable of pulling 8,000,000 tons in any given year, but here in 1945 they tugged 12,700,879! New motive power was essential.

In September, 1945, the board of directors authorized the purchase of four monstrous electrics, which were due for completion and delivery in 1947 but were not shipped until early in 1948.

Dubbed "streamliners" by the men, the two-unit engines bore a marked resemblance to road diesels. So heavy were they, with a working weight of 1,033,832 pounds, that a total wheelbase 133′ 10″ was needed for the 16 motors to produce the 260,000 pounds of starting tractive effort. Unless you stood nearby at Elmore and actually saw for yourself the start of a long climb to Clarks Gap, you can hardly imagine what giants they were.

The most important items in these most powerful of electric locomotives were the five-unit motor-generator sets, one to a cab and two per loco. These consisted of one synchronous motor, two DC traction generators, and two DC exciters.

Each cab was divided into three parts. The nose contained accessories and miscellaneous equipment; the operator's section had the usual controls, and the apparatus compartment housed the m-g set, transformer, control equipment, circuit breakers, air compressors, and ventilating machinery.

Operator in author's home town, Princeton, W. Va., delivers order to eng. 101.

These babies, costing $2,477,980 in all, were built for mountain-mauling with heavy tonnage coal drags (9800 tons eastward from Clarks Gap) and the four daily time freights (7000 tons from the Gap). Power was not the only major advantage. Handling ease was the main factor in winning the hearts of engine crews, who said they "rode like a Pullman car."

Yes, sir, the EL-2B's were quite the thing with Virginian men back in '48, and remained so until the sky fell in, 14 years later.

During the next decade, tonnage and revenues shot up steadily. But the constant maintenance and too-slow-working speed of the squareheads was annoying. Acquisition of the EL-2B's—with 6800 continuous horsepower and a 50 m.p.h. speed maximum—helped, to be sure, but there were only four of them and twelve three-unit EL-3A's. And, what's more, the original juicers were being retired, unit by unit, as they wore out completely. Some, in fact, burned out.

Wonder what will happen to VGN electrics, including this one, No. 233, EL-3?
Photo by Sy Reich

HAVING just completed its "overnight" dieselization program, the management bought in 1955, a dozen 3300-horsepower, rectifier-type, electric locomotives. The GE order fulfilled two purposes: final squarehead replacement

Bent and battered by heavy burdens, VGN coal hopper cars await repairs.

Locomotive No. 125 with time freight train No. 71 westbound near Singer, Va.
H. Reid, 8549 Wayland St., Norfolk, Va.

and completion of the thorough modernization of Virginian's motive power.

Known to the men as "rectifiers," the newcomers had a novel touch. Twelve GL-6878, 12-inch Ignitron rectifier tubes, the heart of the class EL-C engines, converted the 11,000 volts AC taken in by the rooftop pantographs to 600 volts DC, enabling them to use standard diesel locomotive traction motors and trucks. The rectifier tubes were substituted for the m-g sets of the EL-2B's for economic reasons.

Other outstanding features of the road switchers included fabricated steel construction of the entire cab, a spring-raised, air-lowered pantograph, a C-C wheel arrangement, and a there was a cable connection to permit multiple-unit operation. The units weighed in at a comparatively low 197 tons apiece, with a top speed of 65 m.p.h., 42-inch driving wheels, 98,500 pounds of tractive effort at 25 percent adhesion, and dynamic braking. Length inside of knuckles measured 69'6" and the total wheel base was 52' 9¾".

The first revenue run of an EL-C was made October 17, 1956, the same month the first three units were outshopped at Erie, Pa. The 130 did the honors by making three test trips that cloudy day from Elmore up the mountain to Clarks Gap. Conductor Wickline and Engineer Shirley left Elmore on the first trip with 15 loads weighing 1170 tons shortly before 2 p.m. The engines handled two more trains of 19 loads, weighing 1482 tons each, and returned to Mullens motor barn around 9 that evening.

On October 24th, the 131 joined the 130 for two trips up to the Gap with 35 cars each time. The pair headed a Princeton turn on October 26 and made their first Roanoke run on Halloween with 105 loads and 8928 tons from Clarks Gap within nine hours, but not without incident. The Narrows power director shut off the power between Princeton and Narrows for 35 minutes that afternoon while the 130 was being repaired at Kellysville.

However, these first minor difficulties, mainly due to relay adjustments, proved only to whet the electrics' appetites. By February, 1958, when the 141 arrived on the property, they had sealed the doom of the aging squareheads.

Plenty of money-making occurred on the Virginian's electrified division before the merger into the N&W on December 1, 1959. That date was also the beginning of the 2½-year funeral march for the juice jacks.

What use did the N&W have for catenary? Hadn't they replaced it on Elkhorn Mountain (just over the hill from Clarks Gap on the Pocahontas Division) in favor of the big Y-class 2-8-8-2's just a few years back? The N&W stated its case thus: since coal could be diverted around Clarks Gap Mountain, via Virginian's Guyandot River Line to N&W's main at Wharncliffe, thence via a connection at Kellysville, why should the wires stay up?

EVEN SO, after renumbering of all 20 electric units in service into the N&W 200 series, the road coupled three rectifier units together at Elmore for the first time on January 15, 1960. They pulled 13,480 tons of coal, in 155 hoppers, to Roanoke in 8 hours. This set a precedent which was followed until electric operation ended.

After this test run most of the trains were even bigger, reaching a maximum of about 200 cars and 16,000 tons! Virginian standard practice had been to double-head the new electrics with 135 loads weighing 10,000 tons. These "powerhouses on wheels" were doing a swell job and at the same time proving expert John W. Barriger's statement that they were "the world's most advanced form of rail motive power."

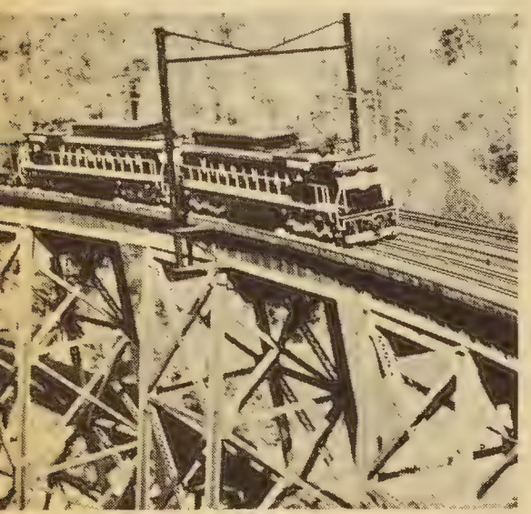
Meanwhile, back at the Gap, the streamliners had been renumbered again in September, 1960, to eight separate units, 221-228. Virginian diesels took over the time freights into and from the old N&W yard at Roanoke immediately after merger, while the EL-C's hauled coal into the Virginian (South Roanoke) Yard.

Ex-Frisco loco (Baldwin, 1920) at the trestle south of Fulton: three-unit, 7125-hp locomotive, No. 107, Class EL-3A, with 61" drivers, built by Alco-Westinghouse in 1925 and photographed at Mullen in 1950. Weight, 1,282,500 lbs.; tract. effort, 277,500.
Collection of Harold K. Vollrath

Marking the end of VGN electrification, John McClanahan, oiler, carries engine-cab supplies (paper, towels, ice, etc.) to 237, EL-C, at Mullens motor barn for last time. That was just before N&W diesels took over juice runs.
Photo by the author

While this big motive power change was taking place the original squareheads were meeting the torch, one by one. By the fall of 1960 all were gone

Early in 1962 the EL-2B's strayed more and more away from their Clarks Gap stronghold as they tugged the long, black trains of predominantly N&W hoppers. Then came the official confirmation from Roanoke on an event that had been suspected back up in the West Virginia hills for nearly three years. On June 7 news releases announced the discontinuance of electric locomotives on the Roanoke-Mullens line, effective July 1, 1962.



"Rectifiers" on Mullens-Roanoke run.

That same day a 90-day notice was served on the 55 men at the Narrows power plant, and line gangs were ordered to have all catenary down by October first.

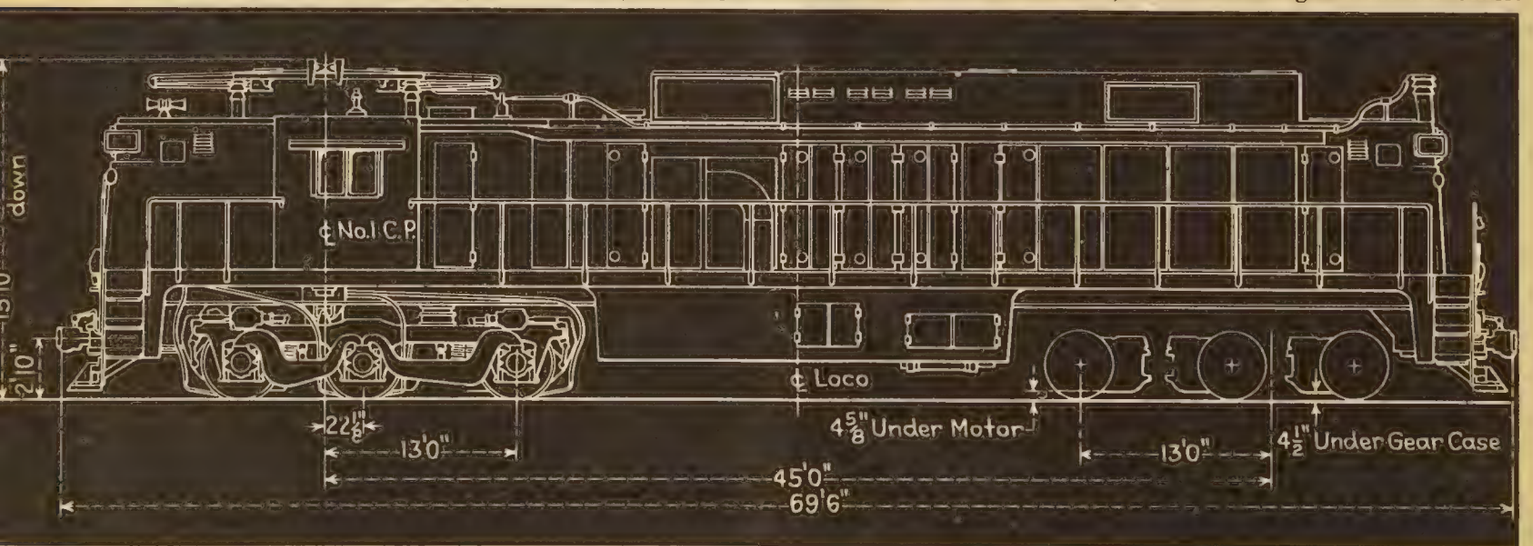
The last westbound run was pulled by engines 239-232-237 as No. 71 on June 29th. The train stopped at Princeton to discharge several newspapermen. Railfans swarmed out to photograph the train at Salem and at Merrimac. All-diesel operation was achieved after No. 72's run June 30th.

As Barriger put it in *Headlights* magazine, the de-electrification was inevitable. "However," he wrote, "I do not consider that it constituted any more of a reflection on the basic merits of future railway electrification (including that of the N&W) than the discontinuance of a number of tunnel and terminal electric operations which had become obsolete when the diesel obviated the need for smoke elimination.

"The Virginian electrification could not be successfully integrated into the consolidated N&W-VGN operations without extensive—possibly complete—mainline electrification of the N&W. The company quite naturally considered this premature."

It was a dramatic and unhappy moment when C. C. Linkenhoker announced the end of electrification. Today, black N&W diesels barrel through Princeton with long coal drags. But the big electrics are missed. ●

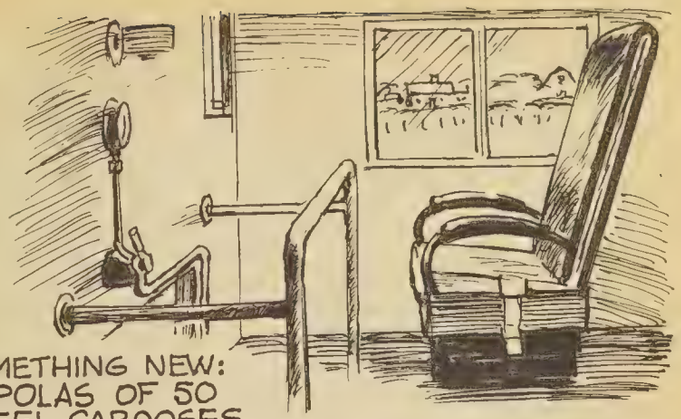
Diagram of Virginian's rectifier-type locomotive, showing cab situated between two hoods, one much longer than the other.



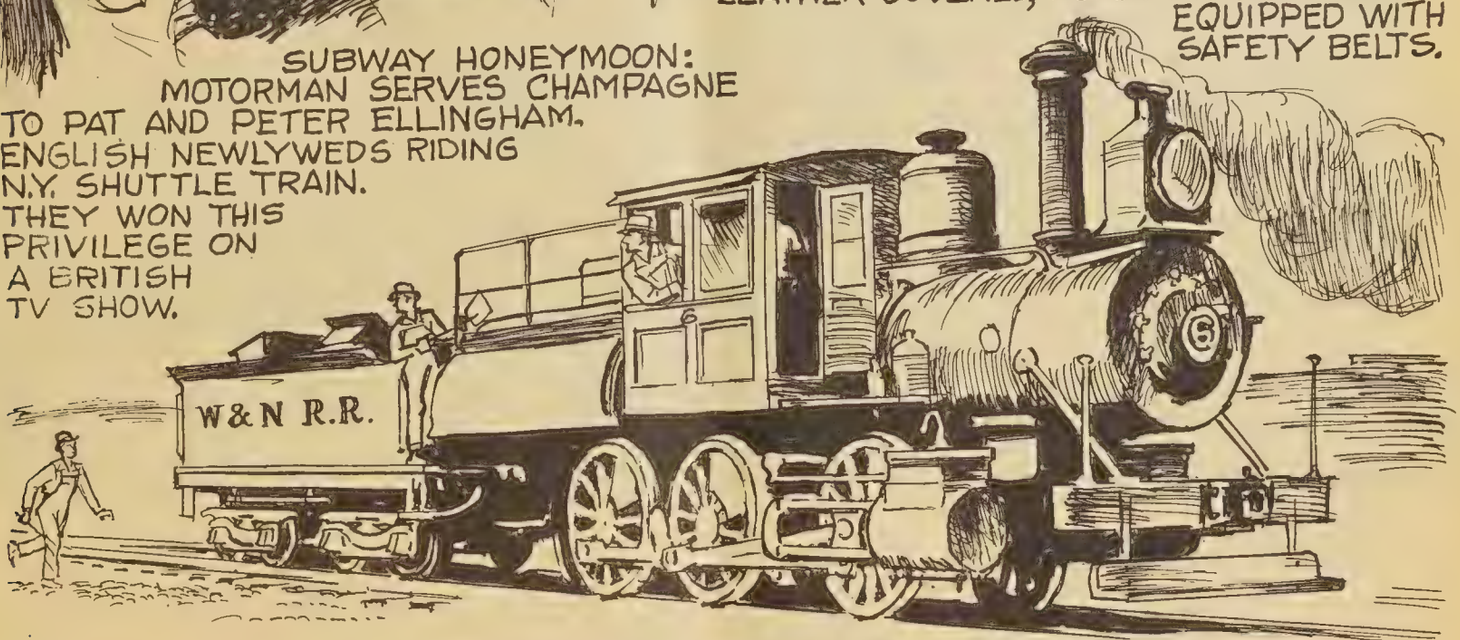
ALONG THE IRON PIKE

by Joe Easley

SUBWAY HONEYMOON: MOTORMAN SERVES CHAMPAGNE TO PAT AND PETER ELLINGHAM. ENGLISH NEWLYWEDS RIDING N.Y. SHUTTLE TRAIN. THEY WON THIS PRIVILEGE ON A BRITISH TV SHOW.

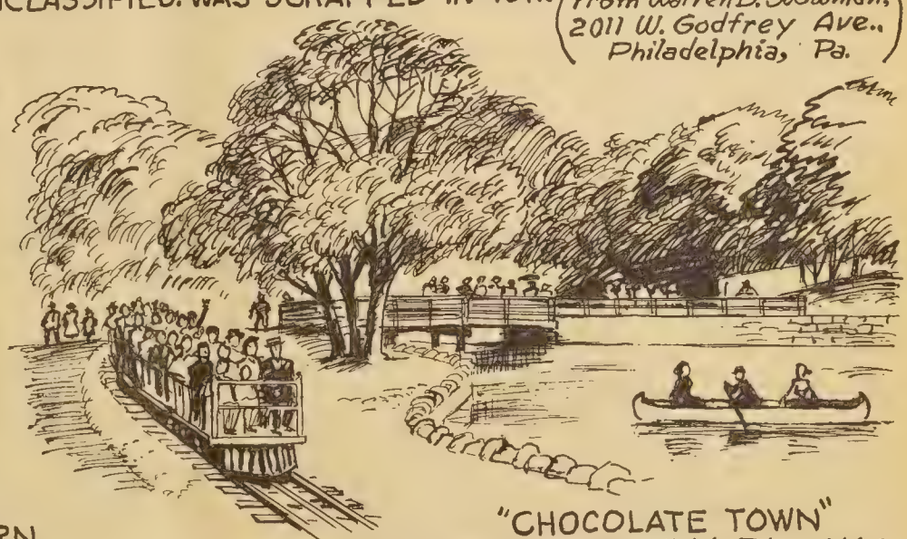


SOMETHING NEW: CUPOLAS OF 50 STEEL CABOOSES ON NORTHERN PACIFIC HAVE HIGH-BACKED, LEATHER-COVERED, FOAM-FILLED CHAIRS EQUIPPED WITH SAFETY BELTS.



WILMINGTON & NORTHERN 0-6-0 NO. 6 WAS THE ONLY CAMELBACK EVER HOME-BASED IN DELAWARE. WHEN THE PHILA. & READING ACQUIRED THAT ROAD IN 1900 SHE BECAME P&R 1309, UNCLASSIFIED. WAS SCRAPPED IN 1911. (from Warren D. Stowman, 2011 W. Godfrey Ave., Philadelphia, Pa.)

CAFETERIAS ON MANY SOUTHERN PACIFIC TRAINS REPLACE HIGH-PRICED DINING-CAR SERVICE. COIN-OPERATED MACHINES DISPENSE EVERYTHING FROM MILK TO HOT MEALS AT LOW COST.



"CHOCOLATE TOWN" PARK AT HERSHEY, PA., HAS REAL NARROW-GAGE ELECTRIC RAILWAY POWERED BY CENTER THIRD RAIL. EACH TRAIN CONSISTS OF 4 TRAIL CARS WITH MOTOR CAR IN THE MIDDLE. (from E. J. Quinby.)

JOHN W. BARRIGER

Barriger 30 years ago, before he made the Monon the nation's first all-dieselized Class 1 railroad. (C) Harris & Ewing

Candid camera registers John W. Barriger, president of the Pittsburgh & Lake Erie, relaxed in business car 99, chuckling at a joke made by a companion. His sense of humor is keen. (Right) He can be serious, too, as at this weekly staff meeting in P&LE Terminal Building, Pittsburgh.

ONE summer day in 1925, when John Barriger first met L. F. Loree, the gray-bearded president of the Delaware & Hudson, they walked from a New York hotel to Grand Central Terminal. John had sought this meeting because he was much impressed by Loree's then-recent book, *Railroad Freight Transportation,* and he asked, "How can a young man in railroad service best further his education for advancement?"

Loree replied, "Study military history." Events moved so fast in military campaigns and battles, he explained, and were recorded so well that the human and organizational elements of success and failure could be seen more clearly there than anywhere else.

John listened avidly. His own interest in history, particularly the Civil War, antedated even his interest in railroads. He had already started to accumulate the large library he has today on the Civil War and World War I, and has since visited every major battlefield in the United States.

Loree's favorite character in history was Napoleon; John's is Hannibal. The average person knows little or nothing about Hannibal except that he led Carthaginian troops over the Alps, used elephants as the forerunners of tanks in battle, and occupied most of Italy for 15 years. To John Barriger, he was the top military leader of all time for those reasons and because he twice surrounded and wiped out vastly superior Roman armies.

Maybe John's fondness for history had something to do with his rail career. We don't know. The record shows that this quiet-spoken man has been vice president of several Class 1 roads and president of two, currently of the Pittsburgh & Lake Erie. He also boasts a half-century of seniority as a railfan. He can show you dates on the first railroad pictures he ever took and he can prove when, as a boy, he bought the first of the 4000 or so books on railroading and related subjects now in his library.

The photos in his collection, most of which he snapped himself, long ago passed the 100,000 mark and are mounted in large albums. They cover more than half of America's rail mileage. In addition, he has over 30 file cabinets full of miscellaneous railroad material.

Altogether, he owns one of the most complete reference sources on the varied phases of railroading to be found anywhere. This is housed adjacent to John's office, where he and his associates refer to it constantly.

He was born Dec. 3, 1899, in Dallas, Texas, four weeks before the 20th century. Actually, he is John Walker Barriger III, although he rarely uses "III" any more. His father, John, Jr., was then a Cotton Belt maintenance-of-way engineer, later having a similar job on the Frisco; and his grandfather, the senior J.W.B., was a West Point graduate and Civil War general, a fact which helps to explain the present John's fondness for history.

Raised in St. Louis, the boy started high school in 1913 and began spending his leisure at Union Station and reading railroad books in the public library. There were no railfan clubs in those days, but John often went on hikes and rides, with a few schoolmates, to nearby railroad points of interest.

Occasionally he wrote railroad articles for his high-school paper, of which he was editor. One such article, about the Pennsylvania Railroad, eventually came to the attention of W. W. Atterbury, then vice president-operations of PRR lines East of Pittsburgh. As a result on the Monday after his graduation in June, 1917, John was

given his first railroad job—in the Pennsy's Altoona shops.

This was, perhaps, the biggest thrill he has ever known. Later, on leaves, he attended Massachusetts Institute of Technology, and spent his subsequent summer vacations with the engineering corps of the Pennsy's New York Division.

Come June, 1921, he graduated from MIT as a civil engineer and immediately went to work as a rodman on the same division. That fall he was sent out to make a traffic study (today you'd call it a market survey) of the Detroit metropolitan area. This tied in with a PRR project to resume construction of a Toledo-Detroit extension, which the wartime nationalization of railroads had interrupted in 1917.

In 1922 the youth helped his company to establish an employees' paper, *The Pennsylvania News*. Realizing the importance of traffic, finance, and public relations, he sought to qualify himself in these areas, but from the outset of his career his main interest was transportation.

Around that time, he learned how Loree, when superintendent and general manager of PRR lines West of Pittsburgh in the 1890's, had given an intensive course in transportation to Henry W. Thornton (later president of the Canadian National). That was exactly what young Barriger wanted. At his request, Atterbury set up a similar course in 1922 and made John a transportation apprentice.

During 1923-'4 the young fellow was assigned to all basic positions in the Transportation department. He passed the air brake and book of rules exams and qualified as a fireman, engineman, conductor, block station operator, and train dispatcher.

The course included three months' training in personnel, which familiarized him with wages and working conditions. It also included a year as transportation inspector and an assistant yardmaster's job at Altoona. During this fruitful period he served on various Pennsy committees studying operating methods on other Eastern roads and national problems of mail transportation by rail.

With this background, in 1927, he became an analyst for Kuhn, Loeb & Company, an investment banking firm identified with financing nearly half of the nation's railroads. Early in 1933, President F. D. Roosevelt, deeply concerned with railroad problems, asked F. H. Prince to prepare a nation-wide plan of railroad consolidation; and at Prince's invitation, Barriger helped to draw up such a plan.

Like all transportation studies made for the Federal Government in the past few decades, nothing directly came of this plan; but it led to John's being invited to take charge of the Railroad Division, Reconstruction Finance Corporation, in Washington. There, during for the next eight years, he supplied facts and figures for $1½ billion of rail financing.

To go into details of all of John Barriger's jobs would fill a book. They include vice president of F. H. Prince's Union Stock Yard and Transit Company (a job he still holds); manager of Fairbanks, Morse & Company's Diesel Locomotive Division; president of the Chicago, Indianapolis & Louisville Ry. (now the Monon), which in 1948 he made the nation's first all-dieselized Class 1 road; vice presidencies of the New Haven and the Rock Island, and finally, in 1956, president of the P&LE.

Barriger is not soft, but his friendliness and desire to consider the other

Photo with locomotive background shows John Barriger when he was president of the Monon; his wife, Elizabeth, and one of their sons, Stanley, then fourteen. American Locomotive Company

person's viewpoint may erroneously give that impression. He works energetically— work being his idea of a vacation. Lucius Beebe's dedication of one of his books, *20th Century,* to John Barriger refers to him as a man who "knows no distinction between work and pleasure."

John's only exercise is brisk walks. He has never smoked, rarely drinks, and never looks at TV unless a notable event or personage is on the screen. Although his hair is gray, with a large bald spot, his abdomen is almost as flat as it was in his college track-team days, and he has never been ill. In fact, he has not lost a day from school or work on account of poor health since he was 13—fifty years ago! For relaxation, he listens to hi-fi records, particularly Johann Strauss music, while reading at home, but he detests jazz.

If John had been living in Paris in the 1700's or Vienna a century later, his salons probably would have been famous. Those were the days when intellectual giants, literary men, musicians, and the nobility held court in their homes to exchange ideas and listen to concerts. Barriger has adapted that social custom (but without music) to away-from-home breakfasts. His home is in Pittsburgh.

He started it some years ago when he lived in Washington and still keeps it up, giving breakfasts at the Biltmore in New York and at the Chicago Club in the Windy City. His guests include railroad executives, financiers, journalists, and industrial leaders, especially big shippers. Their table talk is worth listening to. *Railroad Magazine's* editor, who is occasionally one of the guests, finds them highly informative.

"John," his wife told us, "is easy to live with. We've been married since 1926 and life has never been dull."

He is, indeed, amiable and has a keen sense of humor. The Barrigers have two sons and two daughters. Both sons are MIT grads and also took a Yale transportation course. One son, John IV, is a Santa Fe trainmaster. The other, Stanley H., is a Missouri Pacific industrial engineer and an active railfan, having ridden railroads in the Americas from Hudson Bay to southern Chile as well as in Europe and Africa. He has actually covered more rail mileage than his father.

"My father," Stanley said, "has the almost uncanny faculty of being able to identify locations continuously in his travels over most of America's principal rail routes. On many of them he can tell where he is at night without looking out the window, and has even been aware, upon waking, that he was on a detour route that began after he had gone to sleep! Dad has the basic physical characteristics and track patterns of many thousands of rail miles in his memory."

Unlike Stanley, the P&LE chief has not taken time for world travel. "I've never been abroad," he said wistfully, "except for a brief trip to England. I'd like to ride some of the great name-trains overseas and especially the new high-speed Tokaido line that Japan is now building."

His main bugbears are inefficiency and poor service. "I regard being a railroad executive as a great opportunity when you are in a position to do things that only a president can authorize," he declared.

Barriger's future thinking is concentrated on electrification and mergers. The Prince Plan of Railroad Consolidation, in which he collaborated, was so important that *Railroad Magazine* covered it with a lead feature article entitled "Bigger and Fewer Railroads," which stated:

"He (Mr. Prince) heard of John Barriger and asked him to drop around. The result was the Prince Plan, hastily but expertly prepared by Barriger and a staff of helpers, and presented to President Roosevelt in the middle of March, 1933. The Plan simply threw overboard all the old concepts of mergers. It was ruthless, shrewd, radical, and as compellingly plausible to some people as it was preposterous to others."

As for electrification, John says: "In every nation where railroads are developing rapidly, in contrast to their technological repression that has, albeit unintentionally, been imposed by our own country's punitive railroad regulation, electrification has become standard practice and the extent of its utilization is advancing fast.

"The diesel locomotive represents a decisive improvement over steam power but the complete electrification of railroads will mean as great a potential advance beyond diesel standards as those over the steam engine.

"I confidently expect to see the cost of electrifying main trackage brought down close to the investment equivalent of centralized traffic control. Obviously, electric locomotives will then cost less to build, operate, and maintain than diesels."

Barriger believes that 1963 will bring: (1) a long overdue reform of national transportation policy, (2) major advances toward large-scale consolidation, and (3) important progress in the modernization of work rules and the piece rates used to convert miles run by employees in road service into hours of pay.

"I wish I were young again," he says, "and could participate in the transformation of the present properties into the 'super-railroads' that will be developed between 1965 and 1975. This, indeed, will be the Golden Age of American Railroading." ●

Unique hump in P&LE's modern electronic yard at Youngstown, O., permits freight trains to pass under it and on both sides of it without interrupting the work of classification.

Steve Maguire's

TRANSIT TOPICS

SAN FRANCISCO BAY area will be the first place in America to have an entirely new and extensive rapid-transit network in the near future, thanks to the intelligence of the local voters, more than 60 percent of whom approved a proposed $792 million bond issue to finance a 75-mile system in San Francisco, Alameda, and Contra Costa counties, all heavily populated.

Steve Maguire

Operating that system will be the Bay Area Rapid Transit District, which has decided to buy equipment capable of a top speed of at least 70 miles per hour and a 50-mph average schedule, including stops. Of its 37 stations, 29 in the suburbs will provide auto parking space, thus relieving highway congestion. There are also good plans to use the area's five existing trolley lines in express subway operation between Twin Peaks and a downtown terminal underground.

In Georgia, however, the voters made a bad mistake by rejecting a constitutional amendment that would have cleared the way for a modern system in the Atlanta area with high-speed electric trains using existing rail rights-of-way into the downtown section.

In Atlanta, too, all trackless trolleys will be retired by September 30th, writes Alton Lanier of 2672 Green Meadows Lane in that city. The lease on such vehicles will expire then and the company aims to replace them with stinking diesel buses. This would probably also mean the end of operation of the electric locomotive now being used by Georgia Power Co. for its Davis Street heating plant.

CHICAGO Transit Authority will spend $15 million this year for 180 new rapid-transit cars: 150 for the Lake Avenue route, which recently was moved up onto Chicago & North Western tracks at the outer end, and 30 for the Douglas line. All 180 will replace 200 older and slower types.

GERALD BROOKINS has won the fight to run trolleys on his newly-built Columbia Park & Southwestern Ry. at Olmsted Falls, Ohio. The Zoning Board of Appeals, reversing a prior objection to the line, has granted him a variance from zoning regulations so he can run the trolleys and museum with no more local interference.

There was one condition: the track at the Fitch Road end of the line had to be cut back 60 feet from the street to conform to a municipal requirement. Thus the new line abandoned about 50 feet almost as soon as it opened. The CP&SW is now available for charter trips by railfan groups and the general public. Operation begins this summer.

Cross-section of San Francisco rapid transit subway station planned for 24th and Mission streets. Southbound trains (right-hand track) would later rise to the surface on a transit line to be built within median strip of proposed new Southern Freeway. Northbound trains would connect with Market Street subway.

San Francisco Bay Area Rapid Transit District

A LADY DRIVER, using the right-of-way of Pittsburgh Railways trolleys on Smithfield Street bridge the other day, nearly made an unauthorized trip all the way across the bridge on open track. She held up trolleys more than 30 minutes in the morning rush hour. This incident brought to light the fact that years ago some vehicles used the trolley track when the bridge's roadway was under repair. According to Jim Cerny, our live-wire reporter at Pittsburgh, Pa., a news item in the *Pittsburgh Press* said that Max Wolf, age 86, had driven his electric truck over those bridge

Our next issue will list North America's remaining rapid transit lines. One is Pittsburgh Railways, whose car 1410 is shown unloading on Lincoln Road route.

Stephen D. Maguire, 1411 River Rd., Belmar, N.J.

San Francisco Muni. car 1, shown on ERA fantrip, had been stored over 10 years but was restored for Muni.'s 50th anniversary. Plans are to put it in a museum some time this year.
Chas. G. Seims, 685 E. Las Flores Drive, Altadena, Calif.

tracks in 1907. At that time the carriage lanes were closed and planks had been set between the open ties to make riding the tracks less bumpy.

A NEW BUILDING, 300 feet long, has been erected by the Canadian Railroad Historical Association to hold its interesting collection at Delson on the St. Lawrence River's south shore. Already three trolleys and three steam locomotives are housed there. The building eventually will have 1200 feet of interior track.

P. Murphy, 2178 Harvard Avenue, Montreal, tells us that the new structure has track connections with both the Canadian National and Canadian Pacific. Other CHRA exhibits will be moved from Youville this spring. but nobody seems to know what will happen to the dozens of non-CRHA trolleys stored there, including 17 PCC's. Unless someone removes them, they may be scrapped.

BEGINNING Feb. 4, Catholic University at Washington, D.C., is giving a course in rapid-transit planning, possibly the first such university course anywhere, reports Wm. C. Kessel, Hamburg, N.Y. Details are available from the registrar at the university's School of Engineering.

THE SECOND annual convention of the Association of Railway Museums will be held at the Ohio Railway Museum, Worthington, Ohio, on the weekend of May 18-19th, when delegates will discuss their problems.

Speaking of museums, a new one has gone into operation. The Arden Trolley Museum operated by the Pennsylvania Railway Museum Assn., Inc., P.O. Box 832, Pittsburgh 30, Pa., had its first car operating last December 29th, after eight years of efforts by the members.

Despite freezing rain, more than 50 fans from as far away as Worthington and New York City took part in the big event. Appropriately, Pittsburgh Rys. car 4398, equipped with a sleet-cutter on each trolley wheel, opened the line, followed by Philadelphia car 5326 and Pittsburgh cars 3487 and 1138.

The Arden Museum, located on the old Washington interurban line, about 2 miles northwest of Washington, Pa., will operate Saturdays and Sundays this summer.

RARELY, indeed, does a motorman reach the age of 80 while still on duty, as James Wylie did. Wylie worked 45 years as motorman on the Chicago North Shore & Milwaukee plus a year as student and made his last run, with the *Electroliner,* shortly before the road shut down. Altogether he traveled, he says, about 2,636,880 miles on round trips between Chicago and Milwaukee.

It was a sad occasion for Wylie and all interurban fans when the line permanently stopped running January 21, 1963, at 4:01. The North Shore was the last real high-speed interurban. Its owner, the Susquehanna Corp., ended service after winning a final appeal to a federal court. Now it can reap a harvest—$20 million tax write-off!

The last North Shore train from Chicago to Milwaukee was operated by Motorman Francis Murray, with Joe McGrath as conductor. Crowding the chilly cars were commuters, newsmen, and railfans. One fan, John Fuchs, traveled all the way from San Francisco for the final run and had cachets stamped *CNS&M* as souvenirs. Another, David Myers, Jr., of Waukegan, Ill., spent weeks making tape recordings and photos of the line for the Lake County (Ill.) Museum of History.

At 2:50 a.m. Monday the run ended, 44 minutes behind schedule, and so did the line itself. Rolling into Milwaukee terminal, the frosted two-car train was met by bewildered Gerald Rannow, 18, a naval fireman's apprentice. "Jerry" will long be remembered as the last sailor to miss the train back to the Great Lakes. He had forgotten the CNS&M was about to close, but returned later to his training station via C&NW.

The North Shore Commuters, an association of which Roy Roadcap is president, want to buy the road for $2,500,000—or lease it at $200,000 a year and run it. The North Shore has been argued over in courts for 4½ years and further legal battles are in prospect. Jim Scribbins, Ted Malott, and Bill Kessel sent us the information.

The Nation now has only three systems that can even loosely be called interurbans: the Chicago, South Shore & South Bend (actually upgraded into an electric railroad); the Philadelphia Suburban Transportation Co., and the Pittsburgh Railways route along the shortened end of the former interurban lines to Washington and Charleroi, Pa.

The South Shore line saw a rise of more than $200,000 in freight revenue last year but passenger income fell off over $100,000. The steady loss in riders, such as plagued the North Shore in its declining years, may eventually lead to abandonment of that service.

We hear rumors that South Shore stock is being gobbled up by a "raider" who aims to control the line, abandon passenger service, and possibly sell the freight road to a nearby large railroad system at a huge profit.

SOME residents of Camden, N.J., are unhappy over the Delaware River Port Authority's proposed route to extend the Philadelphia subway line east to Kirkwood, N.J. They claim that, by using the present tracks on the embankment of the Pennsylvania-Reading Seashore Lines, the new road would perpetuate a "Chinese Wall" through their city and they ask that it be rerouted around the center of Camden. Estimates of what such a rerouting would cost vary from $6 million to $15 million, reports Arthur Munson, 25 Hillside Rd., Levittown, Pa.

CORRECTION: Leonard's dept.-store subway is in Fort Worth, not Dallas as a caption in our April issue states.

Says R. F. Corley, 490 Albertus Ave., Peterbororugh, Ont., Canada, "Walter Ryan's data on CNR electrification in your April issue is wrong." (We're checking on it.)

He asks: "Who can give info on San Francisco cable car mounted on powered truck chassis driven on highway? I saw it June '62 between Erie, Pa., and Buffalo, N. Y. No model but the real thing, with SFMR No. 17 and N. Y. State license plate."

Seoul Narrow Gage

JUST beyond the east gate of Seoul, Korea, is the terminus of an electric traction line that carries some 18,000 commuters daily from the east and west into and out of the capital. (The word *Seoul* means capital; the area's real name is Kyung Sung. As if this isn't confusing enough, all Korean names can be spelled correctly from 10 to 15 different ways!)

The line is owned by the Republic of Korea Government and operated by a board of directors. There are about 15 miles of track, and the fare, 3 *won,* equals 2¼ cents in American money. This railway has no physical connection with the narrow-gage Seoul city trolley system except at Hwang-Shimoni, two miles out of the east gate, where it crosses the Korean National Railways. At Hwang-Shimoni or at the east gate passengers can transfer to the Seoul city trolleys.

When built by the Japanese in about 1932, the electric line ran only to the Han River at Song-Dong, about 3 miles. There was no bridge across the river

Korea has a trolley line (left, scene at East Gate, Seoul) and a narrow-gage railway (right, loco 611 with trailers).
Major John H. Vogel, Sea Girt, N.J.

at this point, so the track was laid beyond it east to Kwang-Naru and south to Yu-Dong-Chi. At least seven gas-powered Japanese cars ran on the non-electrified trackage. Three of them are now electrified, still operating. The other four are now running on a 4-mile line in southern Korea.

About 1940 the Han River was bridged, whereupon the entire narrow-gage road was electrified. Freight service with juice locomotives included at least 50 bóxcars, of which only 10 were left after the Korean war.

In 1946, after World War II ended, the United States Army turned the line over to the Korean Government. Despite constant losses claimed by the operators, a slow rebuilding program is in progress, with new ties and heavier rail.

Of the early equipment, three gas cars (now electrified) remain on the property but not in use. Originally numbered 19-21, they are now 500, 512, and 513.

Two old trolleys of Japanese design, Nos. 510 and 511, probably obtained from the Seoul system are now in regular service, along with three of four ex Los Angeles Transit cars of type H, obtained in 1957 from the U. S. as foreign aid. Numbered 700, 710, 711, and 720, all are running except 720, which is being cannibalized for parts for the other three cars. In the same year, through U.S. aid, the Pusan system received 20 ex L. A. trolleys, and Seoul received 38.

Also operating on the narrow-gage line are eight boxcar-type passenger trailers, of which six are in running condition. These are regularly hauled by electric locomotives that handle either passenger trains or freight. There are 5 of these: Nos. 7, Japanese-built, and 601, 602, 610, and 611, all built by GE.

Major John H. Vogel of Sea Girt, N. J., who supplied this information, says that Mitsubishi, one of the larger Japanese *cartels,* is interested in the narrow-gage line and might buy it.

The Seoul city system is to receive 40 or more new trolleys from the Fuji Car Co. of Japan, despite efforts of an American dealer who wanted to donate two PCC cars from Los Angeles—one for Seoul and one for Pusan—so he could sell the rest of the L. A. fleet to Korea.

New Electric Publications

RIDE THE BIG RED CARS: How Trolleys Helped Build Southern California, by Spencer Crump, 240 pages, 8½x11″, hard cover, illustrated, Crest Publications, P.O. Box 2252, Los Angeles 53, Calif., $12.50.

This book covers social and economic history of the LA area, the men and companies responsible for building and operating the world's greatest interurban network, Pacific Electric, and the role it played in the area's fast growth in the early 1900's. Remembrance of the big red cars he had loved as a boy prompted Spencer Crump to write about the factors which made Greater Los Angeles the vast metropolitan monster it is today. He sheds new light on Henry E. Huntingon's ambition to build the electric system not only on the LA region but possibly far beyond, in competition with the mighty steam-powered Southern Pacific, and the efforts of E. H. Harriman, the bespectacled "Wizard of Wall Street" and SP boss, to block his moves.

The manipulations that led eventually to SP taking over PE more than 50 years ago are food for thought. The steam road's strangle-hold on the electric interurban undoubtedly had a lot to do with the tragic end of southern California's rapid transit and the present transportation madhouse there. Crump's book is well worth reading.

RAILS THROUGH THE CLAY, a History of London's Tube Railways, by Alan A. Jackson and Desmond F. Croome, 408 pages, 6x9″, hard cover, illustrated; George Allen & Unwin, Ltd., 40 Museum St., London WC1, England, $6.50.

We find here a detailed history and description of London's unique tubes (subways). The authors present the financial and technical problems involved as well as the social and political influences. Not generally known is Charles T. Yerkes' part in this story. Yerkes was an American financier whose somewhat shady dealings in Chicago and Philadelphia ended in 1902 when President Theodore Roosevelt started an anti-trust crusade. He took off for London, where he engaged in a respectable enterprise, digging subways. Organizing the Underground Company, he did much to ease London's traffic problems by building those lines deep in clay under the capital. The book gives a rather complete account of the first 100 years of London's tubes, plus appendices and an index. A must for fans interested in subways.

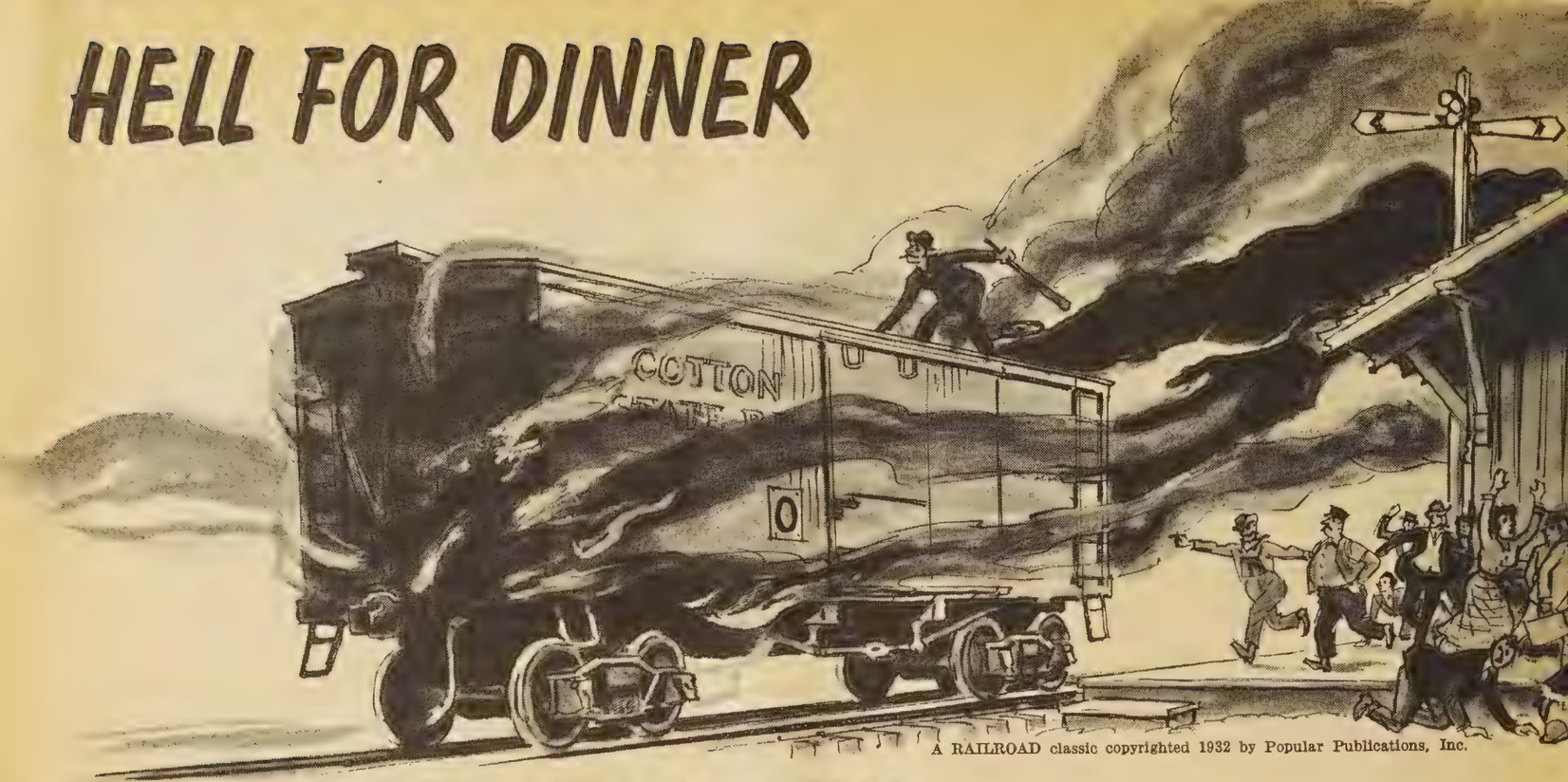
CLEVELAND, SOUTHWESTERN & COLUMBUS RAILWAY, by Max E. Wilcox, 6x9″, illustrated, contains 44 pages of historical CSW&C material, including anecdotes. The CSW&C was one of northern Ohio's most extensive interurban systems, reaching west and south from Cleveland to Bucyrus, Wooster, Norwalk, Wellington, and Lorain. The author's father worked for the line 30 years. Max was looking forward to his 21st birthday so he could take the controls of the cars, but the system faded into oblivion before that day arrived.

An additional 20 pages of Max's booklet are devoted to a history of the Sandusky, Norwalk & Mansfield Electric Ry. that ran between Norwalk and Shelby, Ohio, from 1905 to '21, being replaced by gas cars until 1924. An ill-fated venture, the SN&M (not to be confused with the Sandusky, Milan & Norwalk) was one of Ohio's first interurban systems to be abandoned.

Copies of the 64-page booklet can be had at $1.25 each from Felix E. Reifschneider, P. O. Box 88, Fairton, N. J.

THE RIVERSIDE AND ARLINGTON ELECTRIC RAILWAY, 8½x11″, by Ira L. Swett, is a 50-page illustrated story of one of the predecessor lines of Pacific Electric, that operated as an independent company from 1886 until 1911 in the then small town of Riverside, Calif. Rare old views are reproduced excellently. Issued as Interurban Special No. 27, the booklet can be had at $1 from Ira Swett, 216 S. Western Ave., Los Angeles, Calif. ●

HELL FOR DINNER



A RAILROAD classic copyrighted 1932 by Popular Publications, Inc.

fiction story by DON WATERS/ ILLUSTRATION BY JOE EASLEY

WE WAS broke and hungry and mad. Both of us. I'm a boomer machinist and my partner is "Tidewater Clam."

We'd spent our last two bits for sandwiches—hamburger with onions, and a little dab of mustard. That repast was just before we mounted the front end blinds of a Cotton State train. After being up on a wooden-axle branch line splitting nuts and chipping brasses fer a month, we'd come down to the terminal, blew our roll, and was now easing out.

We was riding without tickets when we first ran foul of a redheaded flat-footed special agent with hands like California hams and a disposition that musta been soured when he was born. He didn't want us to ride the train, 'cepting we paid. When a boomer nut-splitter gits down to where eating is the big subject, he ain't gonna waste money on tickets.

Well, anyway, we was taking the Cotton State Special out, riding the blinds. We made it nice fer about twenty miles like I said, till we stopped for water. Then Reds eases up to us and asks what we're riding on. We shows him our cards. That guy acted like he never seen a Brotherhood card.

"You can either pay hard cash," he says, "or git off the train an' hike to your destination."

We unloaded off the blind, walked up ahead, and when she started again, we mounted her once more. Soon we was riding right on front where the scenery flows free and unobstructed toward us. The headlight beam starts out a narrow shaft and spreads fanways like a wedge into the darkness along the right-of-way.

Say, you ever rode the front end on a fast train at night? It's a swell feeling. To see the steel rails—polished metal dancing and jumping in the headlight beam—to see the telegraph poles—a long stretch o' 'em, closer and closer together as they get dimmer way out in front—to see 'em come marching up one by one, stand still for a minute, and then disappear into the darkness behind—say, it's great!

You can hear the steam flapping against the pistons and the click as the slack takes up in the crossheads and the pins. The *whoo! whoo! who-hoo!* of the whistle sounds mournful and far off. The spinning truck wheels underneath rap the rail ends click like telegraph sounders. On both sides it's like you're down in a canyon. Sharp and distinct where the light cuts the woods and fields along the right-of-way, the scenery slips back. Brother, if you've never rode the front of the smoky end, you missed something.

And *we* missed something too. The hem of my coat musta ripped when I nailed the front step and flopped up on the beam. When I reached in for a sandwich, I stuck my head clear down to where a tail woulda been if I'd had one, but all all I feels is a slit. They was all gone!

That sure is a woebegone feeling, to reach for your dinner and grab a handful of empty air.

WELL, anyhow, we make another stop about thirty miles from where we had our first interview with Reds. We never figured he'd come poking around the front end. But he did.

"Get the hell offa there!" he remarks, kinda nasty this time.

Tidewater Clam tells Reds that it's his job to keep us offen it if he can. The special agent takes the bet and we walk away from him with the words ringing in our ears: "This is as far as you bozos ride this train tonight, or I'm a sonuvabitch!"

She hauled out, clipping it up pretty fast. Reds stayed off to one side, waiting till the baggage car comes abreast of him before he nails her.

We seen him when he made the grab. We was right above the door on the deck, looking down. It ain't so bad, riding the tops if you get close enough to the head end where the cinders don't get you. But a couple of cars back, you'll sure get a hot shower. There's plenty of hand-holds up there.

Next stop was in a lighted station. We could see all the activities going on when the mail and express was being transferred, passengers unloading and getting on to the train. Nobody even noticed us up there till just as the conductor swings his lantern and yells "All aboard!" a frekled-face kid spots

Tidewater Clam is riding his flaming chariot to a stop. A big cloud of sooty black smoke and flames is trailing behind. I wonder why he don't unload.

us and pipes out: "Ohooo! Lookit up there!"

A hundred heads turn our way. All eyes follow the kid's pointed finger. I'm sure disgusted. We flopped to the back end of the top, slipped down between the vestibules, and the train waited. Reds, I reckon, was looking hard for us during the wait.

Lucky there was another passenger train making up on the opposite track. Tidewater and I mix in with the crowd going aboard. We slide up into the smoker and takes a seat.

Directly the special starts moving. I follow Tidewater out. We stand alongside casually behind a post, and as the back end passes, he tips me the nod. We grabs the brass railing on the observation coach, flop over it, sit down out of sight of the passengers inside.

Well, we'd rode this train from most every angle but one. We hadn't been underneath it yet, and that's a spot I don't fancy. However, she'd taken on coal a while back, so we figured the tank lid was still vacant and the coal high enough to shield us from the hoghead and tallowpot's sight.

We rode that to the next stop. It was starting to turn gray over in the east and we knew daylight would soon be on us.

Mebbe Reds wasn't surprised at the next stop. He was up in the cab, chewing the rag with the hoghead. Just as the train slows down, Tidewater and I raise up, doff our caps to him real polite, and bid him a fond adieu. Say, he liked to a throwed a fit, figuring he'd left us far behind. The language he used on that occasion was appalling.

We amble along the track to a patch of woods, wash up in a little creek, and as the sun is rising we stretch out on the pine needles to get some hay.

WE WAS both fagged out, and it musta bin ten o'clock in the morning before I come to. I look over at Tidewater, sleeping peacefully, and recall the whole thing. We sure was on the bum, broke and hungry.

A half hour later we was beating it down the tracks with our eye peeled in case any stray hens in the neighborhood should try to bite us. However, we meet nothing 'cept a trackwalker.

"You're on the way to a burg called Biglow," says he. "There's a freight due along soon; it has a meet with a passenger train right below."

So we figure to ride whichever rattler takes the wait. Not that we care which way we head. East or west don't matter. We'd git to some roundhouse, hit up the shop steward for a pie card, and our immediate pressing troubles would be appeased. We was figgering something 'ud turn up. And it did.

We was hoofing through a cut when it all started. A train-length ahead lay the passing track. Opposite the siding in the cut we see a branch line leading off the main. A new branch, the fills were still raw, the crossities bright. It musta been put in only a month or so. A mile further up the hill a lot of construction work was going on.

I just take it all in, when Tidewater stops, points, and drawls "Georgia, look at them cars!"

That's me, of course. I'm the Georgia Rambler. So I look. There was three or four boxcars on the siding. The head one nearest to the main line furtherest from us was smoking. A bunch of weeds beside it was burning furious. The freight that passed us fifteen or twenty minutes ago musta set 'em off. A red streak of fire danced across the end of the car. The corner was ablaze.

We start on the run toward it, and both stop sudden. The hair on the back of neck riz. Cold chisels played up and down my spine.

For a second or two I stand petrified. Tacked on the side of the car was a square card with a red circle centering it. It didn't take no Sherlock Holmes to deduct what that meant. The construction job above was blasting. Even as we stand there, we hear a dull *boom* from up that way. *Holy mackerel, this car is loaded with high explosives!*

I'm a-trying to figure out our best move when we hear another sound. *Whoo! whoo! who-ho!* not far off, a crossing blow. Then Tidewater Clam speaks, nonchalant like.

"This here thing is just as liable as not to crack loose about the time that passenger goes into the hole for her wait, Georgia," he says. "We better move her."

Tidewater's got the right idea. He starts toward the car. I follow. We knock out a chunk of wood that chocked one of the wheels. I jerk the cut lever. Tidewater picks up a club, heels it over the rail, and pries on the wheel tread. I heave with my shoulder against the end sill and push hard.

It moves inch by inch. I'm doing a lot of thinking as I strain my insides pushing. Tidewater's gonna shove out of the siding which is down hill, and split the switch, roll down the main line past the meeting track, set the brakes and then unload. If and when this thing erupts, it'ull be ahead of the passenger and we'll have plenty time to flag the freight.

It's rolling pert now when it jolts hard, splitting the switch. Tidewater mounts the side ladder, me after him.

When he gits on top he turns and yells: "Unload, Georgia!"

"Nuthin' doin'!" I yell back.

We'd stuck together, him and me, through a lot. I wasn't ditching him now. He tries to reason with me.

"Get off, Georgia! Any minute this is liable to go, an' no use o' us both wakin' up in hell for dinner."

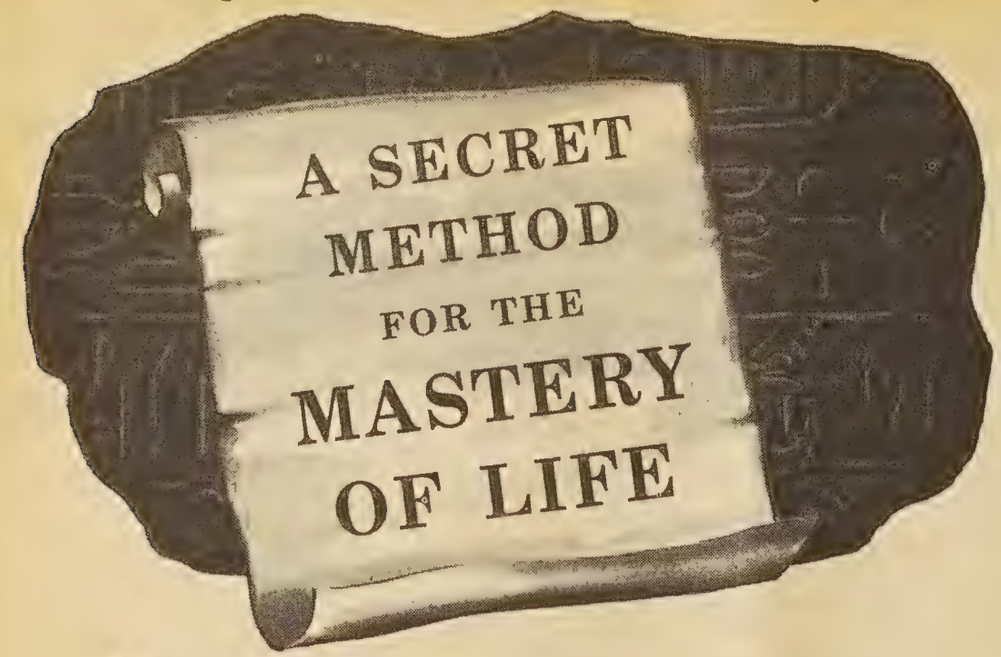
But I'm sticking. Hell for dinner, we was catching it right then. We was beginning to pick up speed down grade.

WIND fans the flames. A cloud of black smoke, thick with the smell of rich pine, makes me gasp when I catch my breath. I git a whiff of scorched paint, see a red wisp of flame curl over the front end and the roof.

I look back. The passenger train is heading into the siding above. I nudge Tidewater. He nods and fists the break wheel. His jaw drops down, his eyes get as big as two saucers. The brake wheel spins around like the button on a tool shanty door. The brake chain on the pull rods musta been disconnected.

Tidewater straightens up. He's game, all right. He gets that look on his face that I seen so often when he's in a tight place—a half grin, a devil-may-care, to-hell-with-everything sorta look

Knowledge That Has Endured With The Pyramids



WHENCE came the knowledge that built the Pyramids and the mighty Temples of the Pharaohs? Civilization began in the Nile Valley centuries ago. Where did its first builders acquire their astounding wisdom that started man on his upward climb? Beginning with naught they overcame nature's forces and gave the world its first sciences and arts. Did their knowledge come from a race now submerged beneath the sea, or were they touched with Infinite inspiration? From what concealed source came the wisdom that produced such characters as Amenhotep IV, Leonardo da Vinci, Isaac Newton, and a host of others?

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—and he says: "Georgia, our flamin' chariot seems to be bad order. This ball o' fire needs fixin'."

His look changes as he glances ahead. We was sweeping around a curve, lickety cut. The flanges was squealing, the wheels going *rat-a-tat* over the rail joints like beating a kettledrum. Ahead I sees the station, the burg of Biglow that the trackwalker told us about.

Down the hill *clickety-clack!* at forty miles an hour we swept along, every minute getting nearer, every one of those clicks meaning a rail joint closer to the depot. In front o' the depot I see forty or fifty people congregated to watch the passenger stop. My hair that had settled, riz again. For I glimpse something else.

The down grade flattens out, the rails level off for a few hundred yards in front of the depot and then start up grade. We're traveling pert, but it don't take no deep thinking to see how we'll slow down, stop on the hill beyond, coast back, and mebbe come to rest right in front of the station.

By the way the fire is popping up on the front of this car, we don't need second sight to know it won't be long now before she raps loose. And when she does—

I'm looking for a soft place to flop into, getting set to do a bird act, when Tidewater shouts pointing ahead: "Unload, Georgia! Set it there!"

I see it, a siding just ahead of the depot, leading off to a sawmill a half-mile below. I think Tidewater is following when I jump to the station platform, but he stuck on the car. I busted through the crowd, hollering: "Gimme a switch key!"

The operator and me unlocks the switch and throws it.

Up the hill Tidewater is riding his flaming chariot to a stop. A big cloud of sooty black smoke is trailing behind him, long streaks of red flame sweeping back. The car slows down on the hill, stops, and begins to roll backward. I wonder why Tidewater don't unload. Every second now is like an hour.

A yell from the depot, pointing of fingers up the hill draws my attention. Coming down is a engine, one coach behind it. All boxed in on the front end it was, varnished wood and plate glass. Officials on an inspection trip, running extra!

TIDEWATER sees 'em, too, and waves his arms in a washout, meaning a stop signal. *Waa! waa!* bleats the whistle like a frightened sheep. I see

(*Continued on page* 44)

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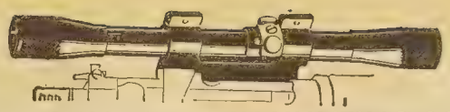

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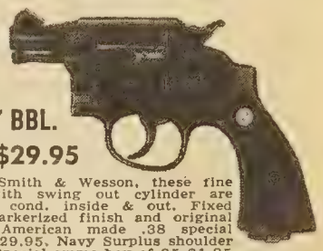

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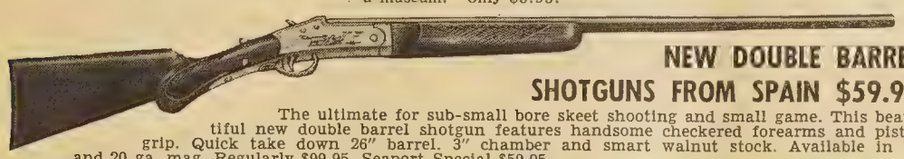

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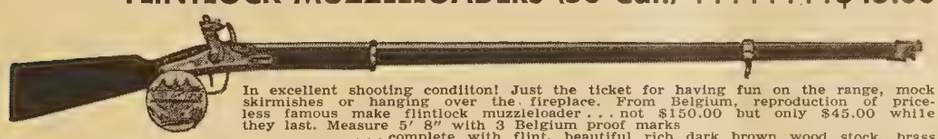

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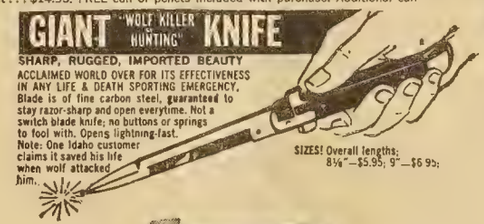
GIANT "WOLF KILLER HUNTING" KNIFE

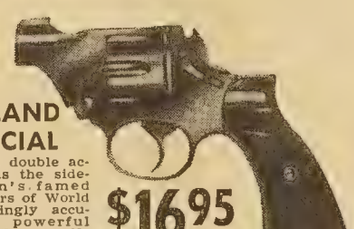
SHARP, RUGGED, IMPORTED BEAUTY

ACCLAIMED WORLD OVER FOR ITS EFFECTIVENESS IN ANY LIFE & DEATH SPORTING EMERGENCY. Blade is of fine carbon steel, guaranteed to stay razor-sharp and open everytime. Not a switch blade knife; no buttons or springs to fool with. Opens lightning-fast. Note: One Idaho customer claims it saved his life when wolf attacked him.

SIZES! Overall lengths; 8¼"—$5.95; 9"—$6.95;



2" Snub Nose .38 SCOTLAND YARD SPECIAL $16.95



This quick-draw, double action revolver was the sidearm of Britain's famed Commando Raiders of World War II. Exceedingly accurate, packs a powerful punch with light recoil. Easy handling, thumb rest grips. Good condition. Specs: overall length 9¾", bbl. 5", wt. 28 oz., capacity 6 rounds. A collector's find. Snub nose $16.95. 4" bbl.—$14.95. For select models add $3. .38 Cal Ammo box of 25, $1.80. Holster, $3.95.

30/06 $39.95 Sporterized SPRING-FIELDS HIGH NUMBERS

Guaranteed very good inside & out. This 6-shot bolt action makes a fine hunting rifle. Has new walnut sporterized stock. 4-groove bbls.; fires military 30/06 cal. ammo, or hunting ammo. Specs: 24" bbl.; muzzle vel. 2800 fps.; combo. open & peep sights, fully adjustable windage & elevation to 2850 yds. Wt. approx. 7½ lbs. Only $39.95. AMMO: 100 rds. military $7.50, 40 rds. soft pt. $5.90.

VOLUNTARY CONFINEMENT

Genuine Police Handcuffs feature deluxe chrome finish with double lock. Light, compact & flexible (equipped with 2 keys). Clever gift for peace officers, jurist, or for the man who has everything. Foolproof, exciting. Only $5.75 belt-type leather case $1.95.

MAIL COUPON

SEAPORT TRADERS, INC. 1221 S. Grand Ave. Dept. AD-5 L.A. 15, Cal.

Gentlemen: Please ship me the following:

Quantity	Product	Cost per Item	Total
	Mexican Bowie	5.95	
	.410 Shotgun	59.95	
	.22 Derringer	16.95	
	Flintlock Muzzle	45.00	
	Remington .22	10.95	
	.22 Long Rosco	12.95	
	air rifle	$9.95	
	.22 Mag. 6 Shooter	**39.95**	
	Handcuffs	5.75	
	Western .22	12.95	
	.38 S. & W. Spec.	39.95	
	30/06 Springfield	$39.95	
	.38 Scotland Yd. Sp.	16.95	
	Large 5½" knife;	$5.95	
	.38 St. W. 2" Bbl.	29.95	
	.22 Ital. Auto	19.95	
	.22 Snubbie	12.95	

TOTAL PRICE.....

Enclosed ..... check or ..... M.O. (COD's require ⅓ deposit). (Be sure to specify & give complete ordering info.) I understand all items are to be shipped F.O.B., L.A. express charges collect. Calif. res. add 4% state tax. **When ordering pistols, please sign statement:** I hereby state that I am a citizen of the U.S., and that I have never been convicted in any court of the U.S., territories, possessions or District of Columbia of a crime of violence or a crime punishable by imprisonment for a term exceeding 1 year, nor am I at present under indictment or a fugitive from justice. I am of legal age and of sound mind.

NAME..... AGE..... DATE.....

WITNESS .....

ADDRESS .....

CITY..... STATE.....

Stop wasting time in a dead-end job! Enjoy the big rewards offered the Law-trained man in business.

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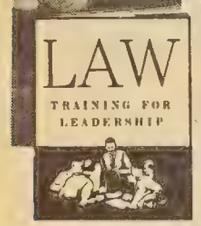
in your spare time as a way to increased earnings

Whatever your present position or previous schooling, you can qualify for rapid promotion and top salaries through LaSalle Law training at home.

A knowledge of Law is essential today in every activity of business. New problems of taxes, insurance, contracts, liability, employment, and much more—all require legally-trained men for key positions.



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"PSYCHIC DOMINANCE"

How to RULE OTHERS with your THOUGHTS." Full course, with stirring exercises. Illus. Adults. Only $3. Sat. or refund. CLARION, Box 9309-N . Chicago 90.

***RUPTURE AGONY Removed**

WHEN you slip into a low-cost, comfort-designed Brooks Patented Air Cushion Appliance! Your *reducible rupture will be held in securely yet gently—or the trial costs you nothing! This invention has made millions of sufferers happy. You can enjoy heavenly comfort night and day at work and play—or the Appliance costs you **NOTHING.** Isn't this worth a no-risk trial by you? If interested, write for free facts now.
BROOKS CO., 300 STATE ST., MARSHALL, MICH.

the wheels lock as the hoghead wipes the gage and gives her the big hole.

She chatters and cathops over the steel. A half-dozen of the brass collars pile over each other, getting off. Real undignified, some of those old coots.

Down the switch lead Tidewater rides his streak of fire down to where the low sheds and pile logs of a sawmill wait at the end. The whine as the big saw bites into wet wood shrieks on the air. Everything gets still and quiet, calm like. I seem to be watching a movie, the burning car rolling down on the sawmill, the streaks o' fire sweeping back on it, and the billowing smoke.

Tidewater's going ahead over the top. I catch sight of him through the smoke going down the front side ladder. He's still got a club in his hand. The wind sweeps the smoke back. One foot on the journal box, the other swinging free, he reaches out.

Clear like a picture, I see Tidewater reach ahead and hold his club in front of the spinning wheel. He drops it across the steel. Then so quick you could hardly foller with your eye, he flings hisself out over the fill and seems to turn a flip-flop in the air. The car jolts. It bumps over the crossties for a few hard, solid thumps.

Then a crash! The earth and sky split wide open, a sharp whiplash o' sound. A second later I hear a dull bellowing roar like a near-by peal of thunder.

The windows in the station behind us cave in with a screaming tinkle of splintered glass. From all the far hills comes a rolling echo like the distant drum beat of summer thunder.

I WAS fanning it fast down the track to where I last seen Tidewater. The brass collars, the inspection outfit, even the whole damn blooming railroad—I wouldnta given a bent pin for 'em then.

How any guy coulda been as close to that blast and escape it didn't seem right. But Tidewater done it. He's picked the right place to ditch the car on a little fill not over five feet high. The car rolled over one side, he took the other. He had the embankment between him and that chariot when it bust loose.

Finally I got there. Tidewater Clam was looking for his cap. 'Cept that I had to holler at him a bit on account of him being slightly deaf, it hadn't fazed him at all. When I ask my pal how he was, he grins and says: "Georgia, I'm still hungry. This here episode ain't dampened my appetite a bit."

So we go back to where we meet the officials, the road supervisor, the general superintendent, the division superintendent, and two or three other brass collars. There's a lot of back-patting and hand-shaking, and after that's all settled, they invite us up to the car behind the inspection engine to wash up. I guess we need it.

Say, that was tough being in there and smelling dinner cooking, me so hungry I could nibble on the bones of King Tut.

Yeah, we got a cigar apiece. It didn't help none when a fat old duck hands me one, and says: "Have an after-dinner smoke?"

I had a notion to tell him then it was after dinner, supper, and breakfast the day before, as far as I was concerned, and Tidewater Clam, too.

But we sit down and relate the story to 'em. Seated in leather-cushioned chairs, we leans back, smoking our seegars, and out of the corner of our eye watching a colored fellow in a white coat drag food from the galley onto the table.

Believe me, brothers, when someone says, "Luncheon is se've," I riz up like that seat had drawbar springs on it suddenly uncoiled.

We sat down to that table and we shoveled down food. To cap it all, while we was eating, who should we see looking up at us but our old friend the night before, the special agent, Reds. He must have unloaded offen a passenger that just went by, and heard the news. Or mebbe he'd come to investigate the occurrence.

I see him standing on the ground below, goggle-eyed as a pike, gazing through the window at us like he's seeing things. I'm busy polishing off a chicken leg.

I jerk my thumb at him and whisper to Tidewater, "Do you see what I see?"

He nods without speaking, on account of a little difficulty he's having right then trying to swallow half a baked potato at one gulp. We finally finish and mosey out on the back platform to enjoy the scenery, and Reds looks up.

"Well, I see you two guys are having a hell of a time."

Tidewater flicks the ashes off his seegar delicate like with his finger, looks down at this bump in the path of progress, this wart on the face of the earth, and says to me casual like: "Georgia, are you acquainted with this person?"

Reds snarls, "To hell with you both!"

And we chorus back at him: "Yeah, to hell with you, too! To hell in time for dinner!" •

We'll train & establish you in

Your Own Business

...while Holding Your Present Job

If you have longed for the prestige and financial independence of your **own** business, you can now realize this goal if you are diligent, honest and able to make a small investment in a business we'll help you establish. We will finance most of your investment.

This worldwide system of **independently-owned** service dealerships is now expanding. We need men for open locations. If no Duraclean dealer is near you, this is a rare opportunity for you.

You may, if you wish, continue your present job until the income from your business equals your job income... then switch to full time.

The national price guide gives you a gross hourly profit of $6 on each serviceman working for you; $9 on service you may do. One small job a day brings a good starting income. Then your business **and income** grow from repeat orders and customer recommendations.

An experienced Duraclean dealer will teach you to render service ...show you how he successfully gets customers. He'll **work with you.** This business is easy to learn . . . easy to start . . . so easy to service that women can do it. Mail coupon for full details . . . with no obligation. You can **then** decide if you would like the dealership in your area.

"Easy to Learn...No Shop Needed"

Owning your own business is easier and much simpler than you've likely thought . . . when you have the training, assistance and constant cooperation of a firm that is deeply interested in **your** success.

Our staff and other dealers work with you. We hold dealer area meetings, training schools and conventions. We work together . . . exchange ideas and swap experiences.

We show you how to bring customers to you. We provide a sales-producing kit, a mailing program and sales materials. Magazine ads explain superior merits of **your** modern services, create customer confidence in **your** business and originate customers for **you.**

More jobs come from pre-tested newspaper and yellow-page ads, store display cards, phone calls, and direct mailings. Your service is backed by McCall's "Use-Tested," and Parents' Magazine seals, American Research & Testing Laboratories, and by furniture and carpet mills' endorsements.

You have a High-profit Business

Dealers earn a profit on both materials and labor. They operate from offices, shops or from home.

A small dealer just starting and doing his own service should gross $180 profit from only 20 hours service in a week. If he uses 30% for advertising, etc., he clears $125. If he services 40 hours, his net profit is $250.

With only two servicemen doing ALL the servicing, a 35 hour week brings the dealer $420 gross profit. Allowing only 20% for advertising, etc., (since his time is free to get orders) he clears $335.

Many dealers, as sales grow, add equipment and men. You may write a Duraclean dealer, if you like.

Your Net Worth Also Grows

You not only can steadily increase your income . . . the growing value of your dealership increases your assets.

J. Humbird (Wash.) sold after 4 months for $1,325 over his cost. J. Braniff (W. Va.) started 3 dealerships, then sold each at a profit. F. Munroe, after 12 months, sold his Texas dealership for 10 times his cost. Leo Lubel (Tex.), after 30 months, sold for $8,308 above cost.

You will have continuous suggestions for increasing your sales and profits. Our entire staff is always available to discuss any ideas or plans you may have.

You have the prestige, freedom and financial security of **your own** business. You steadily increase your family income year after year without waiting for a raise.

We prefer that you have no cleaning experience so you don't have to "unlearn" old scrubbing methods. We and an experienced dealer will show you everything you need to know to succeed and build your dealership.

6 Big-Profit Fast-Growing Services

DURACLEAN brightens, cleans and revives upholstery, rugs and carpets.

DURASHIELD retards soil and stains; keeps fabrics fresh and bright **much** longer.

DURAPROOF kills and repels moths & carpet beetles. Protects upholstery, carpeting, blankets and clothing. You give a 6-YEAR WARRANTY. The U.S. Government says, "Moths are in practically every household."

DURAGUARD flameproofs fabrics and furnishings. Prevents fires starting from cigarettes, candles, etc. Avoids fire damage in homes, theaters, hotels, clubs.

SPOTCRAFT safely removes fixed spots & stains.

TUFTCRAFT repairs cigarette burns, moth damage . . . often saves the carpet or furniture.

Why Your Business Grows

Duraclean's worldwide growth resulted from the safer, quick-dry absorption process rendered on the premises.

Housewives, clubs, hotels, offices and institutions are thrilled to see upholstery and floor coverings cleaned with a **new consideration for its life and beauty.**

Duraclean dosen't merely clean . . . it restores resilience. Colors revive. Reenlivened pile again stands erect and even. An aerated foam created by the electric Foamovator dispels grime, grease and many unsightly spots . . . **without scrubbing** and without strong soaps.

Customers tell friends how Duraclean eliminates the usual soaking and fiber breaking from machine scrubbing . . . how mild quick-action foam, lightly applied, provides safety . . . how fabrics look fresher, brighter, cleaner . . . how quickly they are back in use.

Furniture, carpet and department stores, insurance adjusters, interior decorators, and upholsterers refer jobs to you, from their customers. Car dealers have used cars Duracleaned and take orders for you. You get customer leads from our ads in House & Garden, McCall's, House Beautiful and other quality magazines.

Fabric Mills Endorse Your Service

Aldon Carpet Mills: "We approve this process. We are pleased with the texture restoration." **Patcraft Mills:** "The fibers are not soaked by Duracleaning. This is the best cleaning method we have seen on tufted carpeting."

Trendline Upholstered Furniture: "We recommend the Duraclean method as the safest and most effective method of cleaning fine furniture."

Painter Carpet Mills: "Duraclean is logical approach to carpet cleaning because the tufts are not subjected to the harsh treatment so prevalent in other methods."

Modern Tufting Co.: "Duraclean is superior to any on-location cleaning process with which I am familiar."

An Exploding Market

Government figures show the service businesses growing faster than industries and stores . . . $750 million yearly potential just in rug and upholstery cleaning; and you have 5 **other fast-growing services.**

Furniture and carpet mills have doubled production to meet the growing use of more and better furnishings.

New synthetic fabrics and light colors (which soil faster) have created a growing demand for the quality of cleaning that Duraclean dealers can provide.

Your Investment is Small

A few hundred dollars establishes your business; pay rest from sales. We furnish equipment, sales aids, and **enough materials to return your TOTAL investment.** This may be **the opportunity** in your life you should not miss.

What Dealers Say

L. Lawson: "National advertising is tops, creates leads. In September, working alone, jobs totaled $1,475."

Edward Hoy: "A smoke damage insurance claim bill was $186. All work was done by me in exactly eight hours and two minutes."

T. Mason: "Cleaned two rooms for a stock broker. He was so impressed he lined up 7 jobs for me and from those 7 came 4 more."

C. Blue: "Customer called a competitor. They said they could not clean her badly soiled furniture . . . to contact me because if anyone could get it clean, I could."

Ward Whitbeck: "In my fifth year am making as much as $225 in one day."

L. Broersma: "Have completed 5 years with Duraclean . . . never had one complaint."

C. Weed's serviceman: "The furniture was filthy black. When through, I was amazed at how clean it looked."

Leon H. Babbitt: "I average about $400 monthly part time. I am starting full time.

Ed Kramsky: "In 2 years, I now have two assistants, a nice home and real security for my family."

John Jaffe: "There's a huge demand for good carpet and upholstery cleaning. If you tell enough people about Duraclean, you have to make good."

Carl Smith: "Earned $650 in one week. Volume is getting bigger all the time."

Loren Farris: "I'm proud to be independent at 30. Wish I had known about Duraclean at an earlier age."

Earl Davis: Sales increased $17,660 this year."

Resale Service

If, because of illness, moving or for any other reason a dealer wants to sell, we maintain a service to locate buyers and help him sell.

Dealerships resell at up to 10 times the dealer's cost.

Find Out Now! No Obligation

Mail the coupon or a postcard today. There is no time like the present to **find out** whether this is the business that will increase your income and secure your future. We'll mail all the facts with **no obligation** whatever. (No salesman will call.)

Then, if you decide you want to become a Duraclean dealer, you can mail your application and, if you qualify for acceptance, we'll have you actively operating in a very few days.

Our letter and 36-page illustrated booklet fully explain these urgently needed services, how and why your business grows, why your profits are large, and how we help finance you.

It's been said, "Opportunity knocks but once at every man's door." Your location could be applied for by someone else today or tomorrow. Don't take this risk.

Send coupon TODAY **before your location is taken.**

Mail this coupon TODAY
It may put you in business

Duraclean Co. 3A-429 Duraclean Bldg., Deerfield, Ill.

With no obligation, mail illustrated booklet explaining how I can increase my income and family security with a Duraclean Dealership. (No salesman will call.)

Name_____

Address_____

City_____ State_____

TRAIN AT HOME FOR
BIG MONEY
IN BUILDING CONSTRUCTION

How to Succeed as a Craftsman, Specialist or Contractor

Because building construction employs more than 5 million workers, over 300,000 jobs must be filled each year—nearly all skilled. Train for a top-pay job as a craftsman or specialist—or go in business for yourself as a contractor. Learn estimating, purchasing, blueprint reading, supervising, all phases. Get the needed know-how through easy CTI Home Study. Earn money as you train—build garages, basement rooms, porches, etc.

MAIL COUPON FOR FREE BOOKLET. Over 1 million homes are built every year — over $20 billion spent on remodeling. Discover how quickly you can train for top income, security and independence.

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Send free booklet, "Your Future in Building Construction".

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ADDRESS _____
CITY _____ ZONE _____ STATE _____

RELIABLE MEN AND WOMEN!... TEAR OUT AND MAIL THIS AD TO GET BIG CARTON OF HOME PRODUCTS FREE!

SEND NO MONEY!

Just tear out and mail this ad with your name and address for big Assortment of full-size, famous Blair Quality Products—lovely Cosmetics, Toiletries, etc. ($4.82 retail value)—FREE to reliable men and women. Show friends, earn good money full or spare time taking orders for bargains in over 200 home needs. No experience, no money needed to start... *I give you credit.* Clip this ad, mail with name, address to get big Assortment and Money-Making Plans, *free.*
BLAIR, Dept. 636HL, Lynchburg, Virginia

Shrinks Hemorrhoids
New Way Without Surgery
Stops Itch – Relieves Pain

For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all — results were so thorough that sufferers made astonishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in *suppository* or *ointment form* under the name *Preparation H®*. Ask for it at all drug counters.

Great Northern Railway

Locomotive roster compiled by Sy Reich

RR. Class	Road Numbers	HP	Builder	Model	Wheel Arngt.	Tract. Effort	Weight	Date	Notes
SW-6	1-10	1000	Alco-GE	S2	B-B	61,675	246,700	1950	
SW-7	11-13	1200	GM-EMD	SW7	B-B	62,095	248,380	1950	
SW-7	14-16	1200	GMD	SW9	B-B	62,095	248,380	1950	
SW-7	17-23	1200	GM-EMD	SW9	B-B	61,810	247,240	1951	
SW-8	24-28	1200	BLHW	S-12	B-B	59,950	239,800	1953	
SW-9	29-33	1200	GM-EMD	SW1200	B-B	62,040	248,160	1957	
.....	50-51	360	GE	45-ton	B-B	22,278	89,112	1940	1
SW-1	75-79	600	GM-EMD	SW1	B-B	50,683	202,730	1939, 41	2
SW-1	80-83	600	GM-EMD	SW1	B-B	49,420	197,680	1950	
SW-2	98-99	800	GM-EMD	SW8	B-B	58,125	232,500	1951	
.....	100	900	GM-EMC	NW	B-B	65,225	260,900	1938	3
.....	101	900	GM-EMC	NW1	B-B	63,647	254,590	1938	4
SW-4	102-131	1000	GM-EMC, GM-EMD	NW2	B-B	62,690	250,760	1939, 41	5
SW-5	132-133	1000	Baldwin	VO 1000	B-B	59,945	239,780	1941	6
SW-4	134-136	1000	GM-EMD	NW2	B-B	62,690	250,760	1942	14
SW-5	137-144	1000	Baldwin	VO 1000	B-B	60,275	241,100	1943	7, 15
SW-4	145-150	1000	GM-EMD	NW2	B-B	62,325	249,300	1945	
SW-4	151-162	1000	GM-EMD	NW2	B-B	61,870	247,480	1949	
SW-7	163-170	1200	GM-EMD	SW7	B-B	61,965	247,860	1950	
RS-1	175-179	1000	GM-EMC, GM-EMD	NW3	B-B	53,500	214,000	1939-42	16
RS-1	180-181	1000	GM-EMD	NW3	B-B	56,350	225,400	1942	17
RS-3	182-185	1000	Alco-GE	RS-1	B-B	61,250	245,000	1944	7, 8
RS-2	186-195	1000	GM-EMD	NW5	B-B	54,000	216,000	1946	
RS-4	200-219	1500	Alco-GE	RS-2	B-B	62,095	248,380	1947, 9, 50	
RS-5	220-232	1600	Alco-GE	RS-3	B-B	62,475	249,900	1953	9
P-5A	225-231	1500	GM-EMD	F5A	B-B	63,525	254,100	1946	13, 23
FT-AB	252A, B	2700	GM-EMD	FTA, FTB	(B-B) x(B-B)	115,700	462,825	1945	13, 24
FT-B	254B-258B	1350	GM-EMD	FTB	B-B	56,500	226,050	1945	13, 25
FTA	256A-258A	1350	GM-EMD	FTA	B-B	56,350	225,380	1945	13
F-3-7-A	259A, B	1500	GM-EMD	F3A	B-B	58,630	234,500	1947	13
P-3-7-AB	260A-261A	1500	GM-EMD	F5A	B-B	61,900	247,700	1947	13, 26
P-3-7-AB	260B-261B	1500	GM-EMD	F5B	B-B	61,900	247,700	1947	13, 27
F-3-7-A	262A, B-265A, B	1500	GM-EMD	F3A	B-B	57,625	230,500	1947	13, 28
P-3-7-AB	266A-267A	1500	GM-EMD	F5A	B-B	61,900	247,700	1948	13, 29
P-3-7-AB	266B-267B	1500	GM-EMD	F5B	B-B	61,900	247,700	1948	13, 30
P-3-7-AB	268A-270A	1500	GM-EMD	F7A	B-B	62,160	248,600	1950	13, 31
P-3-7-AB	268B-270B	1500	GM-EMD	F7B	B-B	62,160	248,600	1950	13, 32
F-3-7-A	271A, B-274A, B	1500	GM-EMD	F7A	B-B	60,470	241,890	1950-2	13, 33
A-F-A	276A, B-277A, B	1600	Alco-GE	FA-2	B-B	62,610	250,440	1950	13
A-F-AB	278A-279A	1600	Alco-GE	FA-2	B-B	64,450	257,800	1950	13, 34
A-F-AB	278B-279B	1600	Alco-GE	FB-2	B-B	64,450	257,800	1950	13, 35
P-3-7-AB	280A-281A	1500	GM-EMD	F7A	B-B	62,935	251,740	1950	13, 36
P-3-7-AB	280B-281B	1500	GM-EMD	F7B	B-B	62,935	251,740	1950	13, 37
FT-AB	300A-305A, 300C, 302C-305C	1350	GM-EMD	FTA, FTB, FTA	(B-B)x (B-B)x (B-B)	58,135	232,540	1945	13, 38
FT-AB	301C, 301B-305B	1350	GM-EMD	FTA, FTB, FTA	(B-B)x (B-B)x (B-B)	58,135	232,540	1945	13, 39
F-3-7-AB	306A, C	1500	GM-EMD	F5A	B-B	57,600	230,300	1948	13, 40
F-3-7-AB	306B	1500	GM-EMD	F5B	B-B	57,600	230,300	1948	13, 41
F-3-7-AB	307A, C-309A, C	1500	GM-EMD	F7A	B-B	60,600	242,400	1950	13
F-3-7-AB	307B-309B	1500	GM-EMD	F7B	B-B	60,600	242,400	1950	13
A-F-AB	310A, C	1600	Alco-GE	FA-2	B-B	62,430	249,700	1950	13
A-F-AB	310B	1600	Alco-GE	FB-2	B-B	62,430	249,700	1950	13
F-3-7-AB	311A, C-317A, C	1500	GM-EMD	F7A	B-B	61,700	247,000	1952	13
F-3-7-AB	311B-317B	1500	GM-EMD	F7B	B-B	61,700	247,000	1952	13
P-3-7-AB	350A, C-358A, C	1500	GM-EMD	F5A	B-B	61,800	247,200	1947	13
P-3-7-AB	350B-358B	1500	GM-EMD	F5B	B-B	61,800	247,200	1947	13
P-3-7-AB	363A, C-365A, C	1500	GM-EMD	F7A	B-B	62,590	250,300	1950	13
P-3-7-AB	364B-365B	1500	GM-EMD	F7B	B-B	62,590	250,300	1950	13
P-3-7-AB	375C-376C	1500	GM-EMD	F5A	B-B	62,570	250,280	1948	13, 42
F-T-AB	400A, D, 401D, 402A, D, 404A, 406A, D-428A, D even only	1350	GM-EMD	FTA, FTB, FTB, FTA	(B-B)x (B-B)x (B-B)x (B-B)	57,850	231,400	1943-5	13, 43
F-T-AB	400B, C-428B, C even only	1350	GM-EMD	FTA, FTB, FTB, FTA	(B-B)x (B-B)x (B-B)x	57,850	231,400	1943-5	13, 44
F-3-7-AB	430A, D-438A, D even only	1500	GM-EMD	F3A	(B-B)	57,340	229,400	1948	13, 45
F-3-7-AB	430B, C-438B, C even only	1500	GM-EMD	F3B	B-B	57,340	229,400	1948	13, 46
A-F-AB	440A, D, 442A, D	1500	Alco-GE	FA-1	B-B	62,250	249,000	1948, 9	47
A-F-AB	440B, C, 442B, C	1500	Alco-GE	FB-1	B-B	62,250	249,000	1948-9	48
F-3-7-AB	444A, D-456A, D even only, 460A, 462A, D-468A, D even only	1500	GM-EMD	F7A	B-B	61,500	246,000	1949-53	13
F-3-7-AB	444B, C-456B, C even only, 458C, 460B, 462B, C-468B, C even only	1500	GM-EMD	F7B	B-B	61,500	246,000	1949-53	13
F-3-7-AB	460C, D	2700	GM-EMD	FTB, FTA	(B-B) x(B-B)	123,700	494,800	1944	13, 49
F-9	470B, C-474B, C even only	1750	GM-EMD	F9B	B-B	60,230	240,900	1954	13
P-3-7-AB	500B-504B	1500	GM-EMD	F7B	B-B	62,470	249,900	1950	13, 50
E-7	500-512	2000	GM-EMD	E7A	A1A-A1A	53,722	318,830	1945, 7	7, 10
SD-7	550-572	1500	GM-EMD	SD7	C-C	85,875	343,500	1952-3	
SD-9	573-599	1750	GM-EMD	SD9	C-C	85,740	342,960	1954, 6-8	
GP-7	600-655	1500	GM-EMD	GP7	B-B	62,605	250,420	1950, 1, 3	
GP-9	656-734	1750	GM-EMD	GP9	B-B	61,619	246,475	1954, 6-8	22
GP-5	900-915	1350	GM-EMD	GP3M	B-B	61,540	246,160	1958-9	11
GP-20	2000-2035	2000	GM-EMD	GP20	B-B	64,050	256,200	1960	12
.....	5100	600	AGEIR	.....	B-B	60,000	209,500	1926	18
FT-AB	5600A, B	2700	GM-EMD	FTA, FTB	(B-B)x B-B	113,000	452,000	1941	13, 19
FT-AB	5700A, B-5701A, B	2700	GM-EMD	FTA, FTB	(B-B)x (B-B)	114,595	458,380	1941	13, 20
FT-AB	5900A, B, C	4050	GM-EMD	FTA, FTB, FTA	(B-B)x (B-B)x (B-B)	165,757	663,030	1941	13, 21

(CONTINUED ON PAGE 48.)

Just 4 orders daily for my super comfort shoes will make the down payment for you... and you can easily pay the balance with the profits I'll show you how to make!

230 *different styles*

70 Styles for Women! Satisfy almost every taste! Many comfort features. Low-heeled, high-heeled, casuals, service shoes, latest styles!

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At last... even in your spare time... you can start a business that makes money fast... so fast it can put you in a 1963 car of your choice in one short month! Here's how: At our expense, we'll set you up in a profitable Mason "Shoe Store" business. You need no previous experience... don't invest a dime! James Kelly tried our offer and made $93.55 in just one evening's friendly work! Yes, everyone wants exciting, Nationally Advertised Mason Shoes. That's why you pocket steady cash profits, enjoy easy repeat sales, *big* money... *plus* monthly bonus checks and rich prizes!

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Mason Shoes SELL FAST!

You'll offer over 230 styles for men and women... featuring foamy soft *air-cushion* innersoles... every shoe so comfortable they almost sell themselves for dress, work, sport wear. You'll have no problem fitting people, because you draw on our stock of over 250,000 pairs... sizes from 2½ to 15, widths from AAAA to EEEE. Your customers are delighted. Remember, Mason Shoes aren't sold by stores... folks must buy these Nationally Advertised Shoes from you.

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The moment we receive the coupon below, we'll rush your complete Business Outfit FREE and postpaid! You'll receive a powerful Outfit showing the full Mason line *in color;* a dramatic 10-second Air Cushion demonstrator; "how-to-make-money" Booklet; special measuring board; National ad reprints... Good-Will Gifts... *everything* you need to start making *big money* your very first hour!

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Great Northern Roster Notes

Roster based on data from the Great Northern Railway is accurate as of Oct. 17, 1962. Others supplying data include Alco Products, Electro-Motive Div. of General Motors, and Northern Indiana Public Service.

Builders: Alco—American Locomotive Co.; GE—General Electric; GM-EMD—General Motors, Electro-Motive Div.; GMD—General Motors Diesel Ltd.; BLHW—Baldwin-Lima-Hamilton-Westinghouse; GM-EMC—General Motors-Electro-Motive Corp.; AGEIR—Alco-GE-Ingersol Rand.

(1) Ex 5200-5201. No. 50 sold to Donovan Construction Co.; 51 sold to Iron & Steel Products Co.

(2) 75-79 ex 5101-5102 (2nd), 5103-5105. No. 75 sold to Truax-Traer Coal Co.; 76 and 78 sold to Northern Indiana Public Service, renumbered MF 27 and MF 12.

(3) Ex 5300, originally 5101 (1st); rebuilt by GM-EMD in 1955 to SW1200 mod.; classed SW-4; tr. eff. 62,355; weight 249,420; HP—1000.

(4) Ex 5301, originally 5102 (1st); rebuilt by GM-EMD in 1953 to SW-8 mod.; classed SW-2; tr. eff. 58,110; weight 232,440; HP 800.

(5) Ex 5302-5331. No. 111 sold to Anaconda Co., renumbered 100.

(6) Ex 5332-5333. 132 sod to Paper-Calmenson.

(7) The following units were scrapped: 139, 143, 183-185, 504.

(8) Sold to Western Dominion Coal Mines.

(9) 225-227 ex 197-199. Nos. 231-232 sold to SP&S, renumbered 83-84.

(10) 500-501 ex 500A-501A. Nos. 502-503, ex 500C-501C, originally 500B-501B. No. 504 ex 502A. No. 505, ex 502C, originally 502B. No. 506 ex 503A. No. 507, ex 503C, originally 503B. No. 508 ex 504A. No. 509, ex 504C, originally 504B.

(11) 900-915 rebuilt from 249B, 253A, 253B, 255A, 400B, 400C, 410B, 410C, 412B, 414B, 414C, 418B, 422B, 422C, 424B, 426C.

(12) 2000-2035 rebuilt from 402A,B,C,D; 404A,B,C,D; 406A,B,C,D; 408B,C,D; 416A,B,C; 412D; 426D; 403B; 418C; 248A; 414A,D; 255B; 401D; 400A,D; 403A; 405A,C,D; 410D; 428A; 249A.

(13) Existing cab units are: 247A,B; 248B; 256A, B-259A, B; 262A,B; 263A,B; 271A,B; 273A,B; 274A,B; 276A,B-279A,B; 307A,B,C-317A,B,C; 350A,B,C-370A, B,C; 371B-374B; 401A,B; 403C,D; 405B; 408A; 410A; 412A,C; 416D; 418A,D; 420A,B,C,D; 422A,D; 424A, B,D; 426A,B; 428B,C,D; 430A,B,C,D; 432A,B; 434A, B,C,D; 436A,B,C,D; 438A,B,C,D; 444A,B,C,D-474A,B, C,D, even numbers only. (14) Ex 5334-5336.

(15) Ex 137-138, originally 5337-5338.

(16) Ex 5400-5404. (17) Ex 5405-5406.

(18) Sold 12/41 to Iron & Steel Products.

(19) Renumbered 200A,B, then 253A,B, then rebuilt to 901-902.

(20) Renumbered 250A,B-251A,B, then 375A,B-376A, B, then 250A, B-251A,B. No. 250A was then renumbered 375A, then rebuilt to 724. Nos. 250B and 251A,B rebuilt to 723, 725, 726.

(21) Renumbered 300A,B,C, then 254A, 255A, 401C, then 249B, 255A, 401C, then rebuilt to 900, 903, 727.

(22) 723-727 and 733-734 rebuilt from 250B,A, 251A,B, 401C, 432C,D.

(23) 225-231 renumbered 359A,C, 275A, 360A,C, 361A,C. No. 275A then renumbered 366C.

(24) 252A,B renumbered 418A,B (2nd). No. 418B (2nd) rebuilt to 911.

(25) 254B renumbered 418C, then rebuilt to 2021. No. 255B rebuilt to 2025.

(26) 260A-261A renumbered 366A-367A.

(27) 260B-261B renumbered 366B-367B.

(28) 264A,B-265A,B renumbered 470A,D, 472A,D.

(29) 266A-267A renumbered 368A-369A.

(30) 266B-267B renumbered 368B-369B.

(31) 268A-270A renumbered 370A, 367C, 368C.

(32) 268B-270B renumbered 370B-372B.

(33) 272A,B renumbered 474A,D.

(34) Ex Alco-GE demonstrators 1602A,D.

(35) Ex Alco-GE demonstrators 1602B,C.

(36) 280A-281A renumbered 369C-370C.

(37) 280B-281B renumbered 373B-374B.

(38) 300A-305A, 300C, 302C-305C renumbered 249A, 401A, 403A, 405A, 247A, 248A, 418D, 403D, 405D, 247B, 248B. No. 249A rebuilt to 2035. No. 403A rebuilt to 2029. No. 405A rebuilt to 2030. No. 248A rebuilt to 2022. No. 405D rebuilt to 2032. These are cab units.

(39) 301C, 301B-305B renumbered 401C, 401B, 403B, 405B, 403C, 405C. No. 401C rebuilt to 727. No. 403B rebuilt to 2020. No. 405C rebuilt to 2031. These are booster units.

(40) 306A,C renumbered 458A,D.

(41) 306B renumbered 458B.

(42) 375C-376C renumbered 362A, C.

(43) These are cab units. Later they had the wheel arrangement (B-B)x(B-B)÷(B-B)x(B-B). Nos. 400A,D, 401D, 402A,D, 404A,D, 406A,D, 408D, 410D, 412D, 414A,D, 416A, 426D, 428A rebuilt to 2027, 2028, 2026, 2000, 2003, 2004, 2007, 2008, 2011, 2014, 2033, 2018, 2023, 2024, 2015, 2019, 2034. No. 418A,B scrapped. No. 418C,D rebuilt by EMD, renumbered 460C,D. Then new 418A,B,C,D made from 252A,B,254B,300C.

(44) These are booster units. Later they had the wheel arrangement (B-B)x(B-B)÷(B-B)x(B-B). Nos. 400B,C-410B,C even only, 412B, 414B,C, 416B,C, 422B,C, 424C, 426C rebuilt to 904, 905, 2001, 2002, 2005, 2006, 2009, 2010, 2012, 2013, 906, 907, 908, 909, 910, 2016, 2017, 912, 913, 914, 915.

(45) 432D rebuilt to 734.

(46) 432C rebuilt to 733.

(47) Sold to SP&S 1/50, renumbered 862-865.

(48) Sold to SP&S 1/50, renumbered 206-209.

(49) Rebuilt from FT 418C,D to F7A,B.

(50) 500B-504B renumbered 359B-363B.

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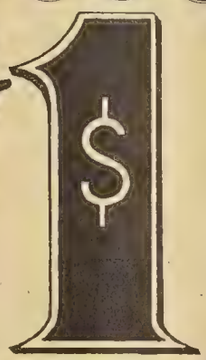

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60 to 64	3.50	10.15	19.95	38.35
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Full Name of Applicant _____ Sex ____

Address _____ Date of Birth _____

City _____ Zone _____ State _____

Occupation _____ Height _____ Weight _____

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FIRST NAME · MIDDLE NAME · LAST NAME	DATE OF BIRTH MO.	DAY	YR.	HEIGHT	WEIGHT	SEX
1.						
2.						
3.						
4.						
5.						

1. Are you and all persons named herein now in good health and free from any physical defects or deformities to the best of your knowledge? _____
2. Have you or any other person named herein during the last five years had any medical or surgical advice or treatment or any other departure from good health? Yes _____ No _____
   If the answer is yes, please give details _____

I have read the foregoing questions and I represent and affirm each answer to be true. I agree to accept the policy that may be issued upon this application. I also agree that the company shall not be liable for payment of any benefits upon sickness, disease, or injury, arising prior to the date of acceptance of this application. **I reserve the right to return the policy within 10 days and receive my money back if I should decide not to continue it.**

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SIGNATURE _____

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BOOKS of the RAILS

RAILROADS OF NEVADA *and Eastern California: Vol. 1, The Northern Roads*, by David F. Myrick, 453 pages, 8½x11", illustrated, over 500 pictures and maps (incl. 16x21" folded map in pocket), frontispiece in full color, Howell-North Books, 1050 Parker St., Berkeley 10, Calif., $12.50.

Myrick is covering his field in two mammoth volumes. Many readers will be amazed to find so much interesting railroad material, both text and photos, from a region which has no major city and is known to the casual public mainly for its sagebrush desert and easy Reno divorces.

Mining industries made that area famous. The Virginia & Truckee became part of the American legend by hauling gold from the Comstock Lode—$46,700,000 in 1877 alone! But plenty of obscure railroads also were colorful; the author has made a point of concentrating especially on those roads.

Exciting names march through the pages of Volume 1: Nevada Short Line, Nevada Central, Nevada Midland, Nevada Northern, Nevada Copper Belt, Golconda & Adelaide, Mid-Pacific, Battle Mountain & Lewis, Silver Peak, Carson & Colorado, Tonopah & Goldfield, and a long list of others.

We read about mule-powered railroads, tent saloons, bonanzas and ghost towns, shootings in "self defense," lynchings and suicides, daily mixed trains, steamboats, trams and trolleys, train wrecks and mine cave-ins, floods, fires, explosions, and just about everything else you could think of in the Old West, not forgetting the most embarrassing experience of a prostitute known as "Kerosene Kate."

As Myrick states, "This book is an attempt to recreate the history, the people, the lives and times surrounding the many railroads built . . ." We think he has achieved this aim. His 500-plus pictures are a feast for the eyes. Volume 2, slated for publication later this year, will carry an over-all index.

THE GIANT'S LADDER, by Harold A. Boner, 224 pages, 8x11", with folded map 24x11", illustrated, indexed, Kalmbach Publishing Co., 1027 N. 7th St., Milwaukee 3, Wis., $12.

The "Ladder" symbolizes the 11,000-foot-high Continental Divide that was isolating Denver from the rest of America. Here is the saga of David H. Moffat, who climbed the Ladder with his Denver, Northwestern & Pacific Railroad after the Union Pacific had bypassed that city with a curt remark, "Denver is too dead to bury," and after Denver & Rio Grande had rejected his plea for building westward out of Denver.

Moffat was 63 when he decided to build a standard-gage line over the Rockies. He whipped the Divide, pushed steel as far west as Craig, Colo., a superb feat, and made a gallant effort to lay rails all the way to Salt Lake City, but the cost of going that far was prohibitive. Abrupt withdrawal of financial aid hastened his death in 1911.

This epic has often been told, notably in *The Moffat Road*, a book by Bollinger and Bauer published a year ago, but never before with so much attention to Moffat's personality, his intimate life with family and friends, in addition to the railroad-building. *The Giant's Ladder* is a large book, a great book, well written and generously illustrated. Surprisingly few of its photos duplicate those in *The Moffat Road*.

PULLMAN IN EUROPE, by George Behrend, 360 pages, 5½x8¾", illustrated with 32 photos, Ian Allan Ltd., $11.

Behrend concerns himself with Pullman cars in Great Britain and the European mainland. Overseas, as in America, "Pullman" stands for distinction in rail travel. The book deals with the development, operation, and servicing of those cars. Changes due to nationalism and World War II have left relatively few of them in Europe outside of Britain. *Pullman in Europe* is a thorough, detailed study. Behrend describes Mr. Pullman himself with wry humor as "1 percent inventor, 9 percent improver, and 90 percent business man."

Behrend's address is Jersey Model Ry., Rozel Harbour, Jersey, Channel Islands, England. He says the publisher's price of *Pullman in Europe* is too high and offers to mail a copy, postpaid, to anyone for $7.—F.P.D.

THE NORTHWESTERN IN IOWA (Special edition of *The Palimpsest*), by Frank P. Donovan, 84 pages, 5½x8", paperbacked, illustrated, The State Historical Society, Iowa City, Iowa, 50¢.

John Blair, a New Jersey delegate to the Republican national convention at Chicago in 1860, helped to nominate Abraham Lincoln for the presidency and from there went directly to Iowa to ride a new railroad, the Chicago, Iowa & Nebraska. The ride pleased him so much that he returned to Iowa in '62, despite the Civil War, and built "railroads faster and more extensively in that state than anyone else, before or since." This item sets the pace for Donovan's railroad history of Iowa, mainly a C&NW story. Frank is an expert researcher and a good writer. His illustrations are well chosen.

RAILWAY PICTURE GALLERY, by John Adams and P. B. Whitehouse, 96 pages, 7¼x9½", Ian Allan Ltd., $6.75.

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By Joseph Di Bernardo

Written to eliminate the costly "trial and error" method of home decorating, here is a guide that gives you all the help and guidance needed to turn out professional decorating jobs *every time*. Every area of decorating and painting is covered including calcimining, stippling, staining and shellacking. Abundant with illustrations, this handbook gives step-by-step instructions for everything from preparing and mixing paints to painting the exterior of your home. Included, too, is detailed guidance for painting wood, metal, brick, stone, stucco, and concrete. Even the novice will discover this guide to be an invaluable tool, not only for major decorating projects, but for the day-by-day patch-and-fix-up jobs, as well.

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By John G. Miller

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OUR HOME RAILWAYS, by W. J. Gordon, 268 pages, 5½x8½", illustrated, indexed, reprint by Railway Publications Ltd., $9.95.

The "our" means British. A book rich in the lore of British railways, their history and operation, well anecdoted.

RAILWAY SCRAPBOOK, by E. W. P. Veale, 160 pages, 5½x8½", illustrated, indexed, Railway Publications Ltd., $5.25.

Veale discusses "The Influence of Railways upon History" (an intriguing subject which we have never before seen covered comprehensively), "Growth of the British Railway System," "An American Retrospect," "Personalities in the Railway World," etc., a potpourri of delightful reading matter.

Other New Railbooks

Artistic paperbound book, "Trolleys to Milwaukee: A pictorial Review of the North Shore Line," 32 pages, 7x9", Illini Railroad Club, P.O. Box 62, Champaign, Ill., $1. Contains 48 photos by John Griber, director of Publications Service, University of Wisconsin.

Colorado has had over 500 railroads, including paper projects and name changes, according to Robt. M. Ormes, author of a 400-page book on that state's railroading to be published this June by Alan Swallow, 2679 York St., Denver, Colo.

Record of Recent Construction of No. 56, AT&SF, Baldwin Locomotive Works, 44 pages, 6x9", enamel cover, reprinted by Harry Albrecht, 40 Wilton Ave., Clifton Heights, Pa., $2.

"The most charming piece of its kind I've ever read," writes Frank P. Donovan, "is the 20-page section on 'The Railroad' in a new book of miscellaneous essays titled 'The Points of My Compass' (240 pages, Harper & Row, 49 E. 43rd St., New York City, $4). The author, E. B. White, laments the passing of the passenger train in Maine."

"British Express Freight Trains," by B. Perrin, 64 pages, 4x6", paperbound, illustrated, Sport Shelf, P.O. Box 634, New Rochelle, N.Y., $1.25.

Reprint of New York, Ontario & Western timetable 44, June 26, 1898, including special rules, 15 pages, 14x8¾", paperbound, Penn Publications, Inc., 31 Arch St., Ramsey, N.J., $1.

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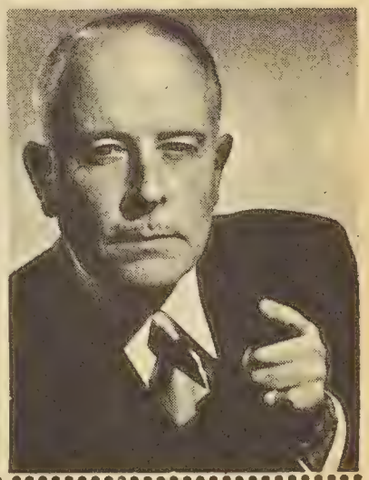

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Coming Events

Apr. 12: "Butler Day Express" (runs 4 days a yr.); lv. NY Port Au. Bus Term., platform 63, 1:10 p.m.; ride bus to Butler, N.J.; then NYS&W train. Bus $1.50 each way. Contact R. Underwood, 723 Edgewood Rd.; Milburn, N.J.

April 27: LIRR excursion to Port Jefferson; polorcars, diners coupled to regular trains; lv. Jamaica 12:15 p.m., back there 5:45 p.m. Fare, $10, incl. meal. Sponsored NY Chap. R&LHS, P.O. Box 434, Grand Cent. Sta., N.Y. City 17.

May 4: Trip out of Fort Worth to ride steam-powered Reader RR. in Arkansas (if minimum of 70 fares is obtained), $4.50. Send check to Reader Excursion, 3401 Reed St., Forth Worth, Tex. No reservation after April 10.

May 4-5: Steam-powered trips operated 11 a.m. and 3 p.m. by Empire State Ry. Museum with 2-6-2 No. 103 and oldtime open-end baggage coach on Middletown & NJ Ry., leaving from M&NJ depot at Middletown. Fare $3 (kids $1.50). In ordering tickets, specify which of the 4 trips. Write Jack May, 5601 Riverdale Ave., New York 71, N.Y., or Royce Towner, P.O. Box 536, Middletown, N.Y.

May 5: Old-style Santa Fe picnic train, San Diego to Escondido via coast and frt.-only lines; bring lunch. Contact Railway Historical Society of San Diego, Inc., P.O. Box 9351, San Diego 9, Calif.

May 19: Two circle trips using CB&Q coalburning 2-8-2 No. 4960, Lincoln to Omaha. First trip (over mainline) lv. 10 a.m., lv. Omaha 12:30 p.m. returning via frt.-only line following Platte River and mainline, arr. about 2 p.m. Second trip, same rte., lv. Lincoln 3 p.m. Photo stops; bag. car equipped for tape recorders, snack car. Each excursion $4.75 (kids $3). Sponsored by Omaha Camerail Club and Lincoln Railfan Club. Contact Gen. Pass. Agt., CB&Q Railroad, in Omaha or Lincoln, Neb.

May 25-26: Two-day steam trip with CB&Q 4960 to Paducah, Ky., leaving St. Louis on Saturday 8:30 a.m. DST, overnight in Paducah hotels, return Sun. evening; movie runs; fare approx. $15. Get all tickets in advance from Stanley Barriger, 7022 Washington Ave., St. Louis 30, Mo. (son of "Interesting Railfans No. 14," page 34.)

May 25-26: CERA's 25th anniv., Chicago weekend, dinner-meeting, South Shore or CTA fantrip. Contact Anniversary Committee, Central Electric Railfans Asso., P.O. Box 503, Chicago 90, Ill.

May 30, 31, June 1: D&RGW n.g. steam trips. Contact Rocky Mt. RR. Club, P.O. Box 2391, Denver 1, Colo.

Aug. 26-Sept. 7: National Railway Historical Society round-trip convention special via CBQ to Denver, partly steam-powered, sponsored by Iowa Chapter, 704 E. Charles St., Oelwein, Iowa, which will put your name on list for details of this and other NRHS convention trips.

Locomotive Roster Notes

These corrections to our Chicago Great Western roster (Feb. '63) come from R. C. Beach: Unit 1 had no class, was rated at 175 hp, 9000 lbs. tractive effort, weighed 59,000 lbs., had C wheel arrangement, and was scrapped June 28, 1956.

EMC rebuilt No. 2 in Dec. '41 with 58,190 lbs. tractive effort, 273,600 lbs. weight. Nos. 3 and 4 had no railroad class, had B-B wheel arrangement (like No. 2), tractive effort of 57,500 lbs., and weighed 230,000 lbs. Both were built in 1936, sold March 31, 1951.

No. 1000 weighed 119,300 lbs.; originally built by McKeen as 1002 with rating of 200 hp and 69,800 lbs. weight; was rebuilt at Oelwein in 1928 with Electro Motive power. Rebuilt at Oelwein again in 1958, it is now used at Winona, Minn. Engine 7 is presently stored at Oelwein awaiting disposition.

In New York Central roster (June '62) model number of Alco road switchers, Class DRS-12a, should be RS-32.

Regarding B&O roster (April '62) the following should end controversy on certain units: locomotive 245, renumbered 4504, original roster was correct. Number 1407 was scrapped in 1956. Original note 21 stands correct. Unit 2414 was Class PE-4x in 1958, reclassed PE-5x by 1960. Never was a 2624.

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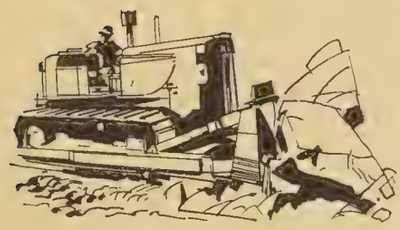

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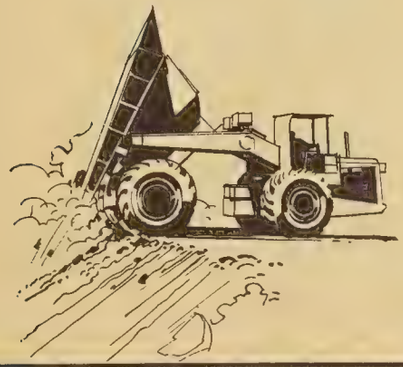

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HOBBY CLUB

by Sy Reich

Loco desk model built by Leon Breese.

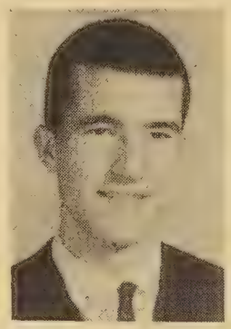
DURING his 48 years of engine service, Leon M. Breese fell in love with the Delaware & Hudson, especially its steam power. He went firing in 1910 and moved over to the right-hand side of the cab in 1917. He remembers the old D&H pay-car and Paymaster Atherton, and the narrow escape he had one night while approaching Pittston, Pa., with a heavy coal drag in cloudy weather.

Sy Reich

"A boy waved a flashlight across the track in front of my engine," he writes. "I made an emergency stop, passing him by about 40 car-lengths. The boy ran up and I asked what happened. 'Mr. Engineer,' he said in broken English, 'there is a big hole in track.' Sure enough, a short distance ahead I saw a very wide hole about 90 feet deep. God must have ridden my cab that night!"

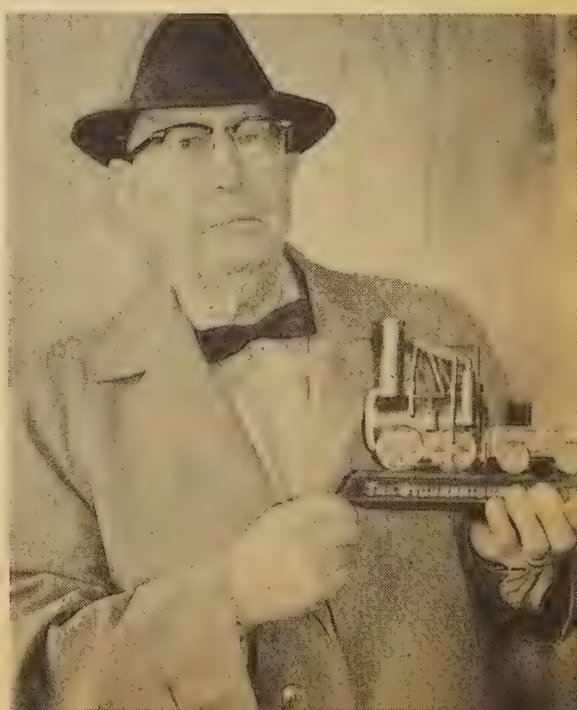
Breese retired in 1958. With time on his hands, and mechanical skill, he built a small but accurate replica of the first D&H engine, the *Stourbridge Lion* (see page 14), After experimenting for six months with clay, cement, etc., he hand-cast it in bronze, plated it with old gold, and began selling these casts to his friends for desk models.

One of them stands today on our office bookcase. It is realistic, durable, and handsome, measuring 8½ x 6¾ x 3″ and weighing nearly 4 pounds, an artifact of pride and admiration. Underneath, the base is lined with brown felt. Our little bronze *Lion* looks like a museum piece. The old D&H hogger (79 Tenth Ave., Carbondale, Pa.) sells them at $7.50 each, plus a small charge for parcel post, the exact price depending upon how far the model is shipped.



Lloyd D. Lewis, author of our Virginian electrification story, is the youngest feature writer we've ever had, being a 17-year-old high school senior. His father has been railroading for 37 years—on the VGN and Norfolk & Western. "What started me writing professionally," Lloyd says, "was work I did on

Engr. Breese shows size of his model.



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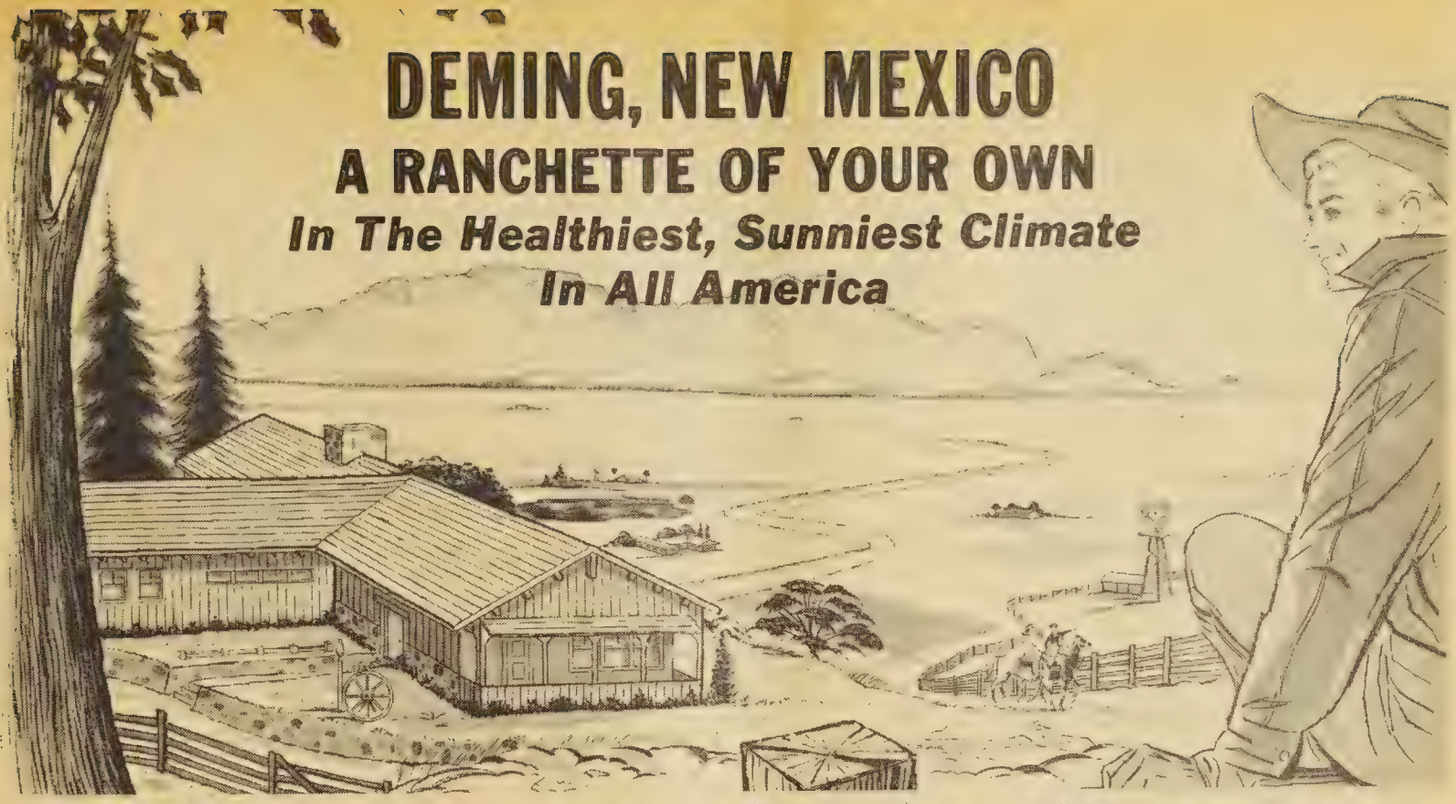

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To live anywhere in New Mexico is to live better. The superb climate, naturally air-conditioned in the summer and brilliantly sunny in the winter—the breathtaking beauty of a lavish Nature—the young vigor of a state that is causing an unprecedented business and investment boom—the record which shows that one lives longer, that health improvement is almost miraculous—these are the reasons that tens of thousands of Americans already have come here to live, and hundreds of thousands of others will be following in the immediate years ahead.

Consider then: Here in the center of this miraculous climate and beauty are towns which have grown amazingly in the last 10 years. Las Cruces, for example: In 1950 it had 12,000 people. By 1960, 37,000 . . . **a rise of 300% in 10 years!** (How about your town? Has it grown 3 times its size in 10 years?) Like Tucson and Phoenix, this area is a beautiful semi-tropical paradise where palm trees and long staple cotton-fields flower the landscape. Statistics show the same 85% of possible sunshine, summer and winter; these same figures reveal even purer, drier air than in Phoenix or Tucson.

A few minutes from the flavorful town of Deming (population 8,000) is a 5,000 acre Ranch, picture-framed by the breathtaking Florida Mountains. So real, so beautiful, so typically the romance of the Southwest is this valley Ranch that it has been photographed for the covers of many magazines including the official publication of the State of New Mexico. **What better way to describe its Southwestern flavor than to tell you that when the producers of the movie THE TALL TEXAN sought an authentic locale for their picture, they chose the very land we are now sub-dividing into the DEMING RANCHETTES. THE TALL TEXAN was filmed on our ranch, the same place where you may have a Ranchette of your very own!**

This is the lovely basin of land where heavy equipment is now at work constructing wide roads facing every DEMING RANCHETTE. Every Ranchette will have direct access to avenues leading to three major highways surrounding our property—U.S. Highways 80, 70 and State Highway 11.

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And the price of your Ranchette? Just $199 complete for a half-acre, $5 down and $5 monthly. That's the complete price—no extras, no interest, no taxes! At this moment you may **reserve** as many half-acre sites as you wish but please bear this in mind: **DEMING RANCHETTES** is not an enormous development and land such as this goes fast. At these prices you may want your Ranchette to be larger—one, two—even five acres. An **immediate** deposit will guarantee that your half-acres will adjoin each other (this may not be so in the near future). **And you take no risk in sending your deposit.** Your $5 per half-acre will definitely **reserve** your land but does **not obligate** you. **You have the unqualified right to change your mind 30 days after we send you your Purchaser's Agreement, Property Owner's Kit, Maps and Photographs**—30 full days to go through the portfolio, check our references, talk it over with the family. If, during that time, you should indeed change your mind your reservation deposit will be **instantly** refunded. **(Deming and Albuquerque Bank references.)**

Ten years ago, in nearby Las Cruces, a comparable fertile half-acre such as we offer in DEMING RANCHETTES could have been bought for $199. Today it's up to $2000! Experienced realtors predict the same future for Deming—in a much shorter time! If this makes sense to you your next act is mailing the coupon below. And one more thing: we promise that no salesman will annoy you. Thanks, sincerely, for your attention.

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- ☐ 1½ acres for $590. I enclose $15 as a deposit.
- ☐ 2½ acres for $975. I enclose $25 as a deposit.
- ☐ 5 acres for $1925. I enclose $50 as a deposit.

Please rush complete details, including my Purchaser's Agreement, Property Owner's Kit, Maps, Photographs and all data. It is strictly understood that I may change my mind within 30 days for any reason and that my deposit will be fully and instantly refunded if I do.

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H. Reid's latest book, *The Virginian Railway,* for which I supplied much info. and one photo, besides proofreading the entire manuscript." Home: 803 Park Ave., Princeton, W. Va.

VGN color-shot on our cover, which he made, shows westbound hill run at Elmore substation with pusher engines 226 and 222 and a VGN caboose.

Yeas ago, when Don Steffee was compiling his famous *Annual Speed Surveys* for *Railroad Magazine,* we bragged about 60-mph passenger service. Today, plenty of American passenger trains run way ahead of that mark, and mile-a-minute freights, especially on the Penn-sy, are commonplace.

Wanted: two lovely girls from the ranks of transportation and travel industries for the opening ceremonies of N.Y. World's Fair, 1964-'5, as "Miss Transportation" and "Miss Travel." Send photos and info. to Transportation & Travel Pavilion, Inc., Time & Life Bldg., New York 20, N.Y. Each winner will be given a $1,000 Defense Bond and an all-expense trip to the Fair.

A rail-circus club open to everyone is Sells-Floto Ring 34, Rhode Island, reports Anthony Olobri, 56 Cato Ave., Pawtucket, R.I. Organized in 1959. Dues, $2 a year. Members build and exhibit circuses and circus trains, collect rail and circus items.

We said of Wilbur T. Golson (Interesting Railfans No. 13), "He belongs to more railfan groups (six) any anyone else we know of." You ain't heard nothin' yet. Actually, the title is held by Arthur T. Knowles, P.O. Box 1943, who belongs to 26 different groups! Included are just about all of America's wellknown railfan and trolley organizations, 4 divisions of the Railroad Enthusiasts, several museums, 2 English "Railway Preservation" societies, and even the Steamship Historical Society of America.

The Steam Parade

Three small standard-gage donkey steam engines are for sale by Bryan Dresser Traprock, Inc., (C. J. Martinson, purchasing agent), Shakopee, Minn., reports Jeffrey Clack, Box 653, Wheatland, Wyo. Each is equipped with saddle tank, coal tender, bell, whistle, 112 boiler tubes (outside diameter 2″) and a set of safety valves set at 180 lbs., is in good condition, and can haul 7 to 8 loaded cars. Jeffrey warns: "Unless sold soon, they will be scrapped."

A pair of aged Consolidations, formerly Nos. 330 and 348 of the Duluth, Missable & Iron Range, are still working daily, now faithfully serving their new owner, the Duluth & Northeastern, which connects with DM&IR at Saginaw, Mich. The boiler of DM&IR No. 102, stripped of wheels, etc., is generating steam for the Biwabik enginehouse.

DM&IR still has in storage two giant Yellowstone Mallets, capable of snort-

MISSOURI-KANSAS-TEXAS RAILROAD

Locomotive roster compiled by Sy Reich

Original Road Nos.	New Road Nos.	HP	Builder	Builder's Model	Wheel Arrang't	Tract. Effort	Weight	Date	Notes
101A, C	51A, C	2000	GM-EMD	E7A	A1A-A1A	52,500	315,000	1947	
106A, C-107A, C	52A, C-53A, C	2250	GM-EMD	E8A	A1A-A1A	59,200	316,500	1950	
121A, C-124A, C	78A, C-81A, C	1500	GM-EMD	FP7A	B-B	64,500	258,000	1952	
121B-124B	78B, D, E, F	1500	GM-EMD	F7B	B-B	57,500	230,000	1952	
131-135	54A, C-55A, C, 56A	2250	GM-EMD	E8A	A1A-A1A	59,200	316,500	1951	
151A, C-152A, C	?	2000	Alco-GE	PA-2	A1A-A1A	50,000	303,000	1949	2
153A, C-157A, C	?	2250	Alco-GE	PA-3	A1A-A1A	50,000	303,000	1950-1	2
201A, C-207A, C	64A, C-69A, C, 70A	1500	GM-EMD	F3A	B-B	57,500	230,000	1947	1
201B-207B	64B, D, E, F, G, H, 65B	1500	GM-EMD	F3B	B-B	57,500	230,000	1947	
208A, C-211A, C	71A, C-74A, C	1500	GM-EMD	F7A	B-B	57,500	230,000	1949	
208B-211B	65D, E, F, G	1500	GM-EMD	F7B	B-B	57,500	230,000	1949	
226A, C-229A, C	75A, C-76A, C, 65H, 70C, 77A, C	1500	GM-EMD	F7A	B-B	57,500	230,000	1949	
226B-229B	75B, D, E, F	1750	GM-EMD	F9B	B-B	56,200	224,800	1955	
326A, C-334A, C, 331 A (2nd)	?	1500	Alco-GE	FA-1	B-B	60,650	242,600	1940-50	3
1000-1010	?	1000	BW	DS 4-4-1000	B-B	58,750	235,000	1946-7	
1026-1030	7-11	1000	GM-EMD	NW2	B-B	62,000	248,000	1947	
1201-1215	?	1200	BLHW	S-12	B-B	60,000	240,000	1951-2	4
1226-1235	12-21	1200	GM-EMD	SW9	B-B	62,000	248,000	1952	
?	1-6	1200	GM-EMD	SW1200	B-B	62,000	248,000	1957	
1501-1509	91-99	1500	GM-EMD	GP7	B-B	60,000	240,000	1950	
1510-1529	100-119	1500	GM-EMD	GP7	B-B	60,000	240,000	1951-2	
1551-1563	?	1600	Alco-GE	RS-3	B-B	60,000	240,000	1950-1	
1571-1586	?	1600	BLHW	AS-16	B-B	60,500	242,000	1950-2	
1591	?	1600	FM	H16-44	B-B	61,500	246,000	1950	
1651-1654	?	?	GE	70 ton	B-B	35,000	140,000	1948, 50	
1701-1702	?	1600	Alco-GE	RS-3	B-B	60,000	240,000	1951	
1731-1734	?	1600	FM	H16-44	B-B	61,500	246,000	1951	
1761-1764	120-123	1500	GM-EMD	GP7	B-B	60,000	240,000	1952	
1787-1788	?	1600	BLHW	AS-16	B-B	60,500	242,000	1952	

Roster was compiled without the aid of the Missouri-Kansas-Texas Railroad and therefore is not guaranteed to be accurate nor complete. Information supplied by K.L. Douglas and GM-EMD. Locomotive builders: GM-EMD—General Motors, Electro-Motive Div.; Alco-GE—American Locomotive Co.-General Electric; FM—Fairbanks Morse; BW—Baldwin-Westinghouse; BLHW—Baldwin-Lima-Hamilton-Westinghouse.

Numbered notes: (1) 207C scrapped. (2) These locomotives reported stored at Parsons, Kan., 10/7/61, unrenumbered. (3) 331A (1st) scrapped and replaced by 331A (2nd). (4) Evidence indicates these units might be renumbered 33-47. ●

ing up a good head of steam when the occasion demands. The old 3-spot, first locomotive in the road's history, is on display at Two Harbors, Minn., unprotected from the weather but looked after by Lake County Historical Society. Two DM&IR 2-8-0's on display are Nos. 347 at Chisholm, Minn., and 1218 (with coach 81) at Tower, Minn.

The all-steam Kentucky & Tennessee is likely to dieselize this summer, reports Alan Jorgensen. On the Rockton & Rion, No. 713 is operating, No. 19 was wrecked, and No. 31 has mechanical difficulties. On the Buffalo Creek & Gauley, Georgia-Pacific's logging road used its Shay last winter because of ice on the tracks but is now operating a Plymouth diesel.

The Clinchfield moved the last of its stored steamers out of Erwin (Tenn.) Yard on Dec. 28, 1962: four once-powerful Mallets, Nos. 660-663, Class E2, all scrapped in Tampa, Fla.

Colorado & Southern has retired steam engine No. 641 from a Leadville-Climax freight run and given her to the City of Leadville for display. This ended C&S's 82-year steam era.

Sharon Steel Corp., Fairmount, W. Va., has an 0-6-0 with slope-back tender, in good condition, for sale at scrap price, but may possibly scrap her even before this announcement can be printed,, reports "Chuck" Feather, 442 Salvini Drive, Pittsburgh 16, Pa.

The following list of steam power to be seen in British Columbia is supplied by John Hoffmeister, 1715 Richmond Ave., Victoria, B.C., Canada:

VANCOUVER ISLAND (INACTIVE): Port Alberni—MacMillan & Bloedel, Shay near highway; Courtenay—Comox Log. & Railway Co., No. 2 (2-6-2T) in Lewis Park; Nanaimo—Wellington Colleries (E&N), 0-6-0T in Piper Park; Palili—Mayar Lbr., No. 3, first superheated logging loco (Shay) in B.C.; Deerholme—Wellburns Farm, near CNR, Bloedel, Stewart & Welsh, No. 1, two-truck woodburning Shay on display, No. 2 active occasionally, both n.g. 0-4-0T's; Victoria—steam fire engine (pumper), the Redfern (built 1896) at Fire Hall.

MAINLAND (INACTIVE): Vancouver—CPR 374 (4-4-0) at Kitsilana Park; CPR (0-4-0T) at PNE grounds; Kamloops—CNR 2141 (2-8-0), last CNR steamer in B.C., in park near depot.

VANCOUVER ISLAND (LIVE): Elk Falls (Campbell River)—Elk Falls Co., 3-truck Shay, No. 1, at mill; Beaver Cove—Canadian Forest Products, 2-8-2, several Shays, 2-6-2T, Nimpkish Valley RR.; Nanaimo River—MacMillan & Bloedel No. 1077 (2-6-2), No. 18 (2-8-2T); Ladysmith—Comox Log. & Ry., 2-8-2's Nos. 11, 16, stored serviceable; 2-6-2 No. 7 and Shay No. 12 out of service, stored pending preservation; Honeymoon Bay—Western Forest Industries, No. 5, Pac. Coast Shay, at mill in stand-by service; Mesachie Lake—Hillcrest Lbr., Climaxes 9 and 10 used at mill and on log hauls to Lake Cowichan; Crofton—Osborn Bay & Wharf, 2-truck coalburning Shay used on .33 miles of wharf trackage.

MAINLAND (LIVE): North Vancouver—Ry. Appliance Research Ltd., 3-truck Pac. Coast Shay No. 15, came from Canadian Forest Products, presently leased to Bob Swanson and powering steam excursions on PGE; New Westminster—Pac. Coast Terminals USRA 0-6-0's Nos. 4012, 4076, used in both company work and on excursions.

An ambitious monthly journal is "The Steam Chest," official publication of West Coast Railfans Asso., Inc., P.O. Box 2790, Vancouver 3, B.C., Canada. It has 8 to 12 large mimeographed pages of rail history and rosters, sometimes plus a page of photos, edited by Doug Cummings. Subscription, $3 a year.

"Like many other fans, I have albums of steam loco pix," writes F. Dudley, 436 Aspley Lane, Aspley, Nottingham, England. "Because of various sizes and shapes of these photos, I have awkward spaces and am filling them with railway tickets and luggage labels. I need North American tickets and labels. Will any reader swap such items with me?"

Info. for use in a book he is writing on New York State's abandoned railroads is wanted by Wm. F. Helmer, State University of New York, Morrisville, N.Y.

Wanted by Wm. Pletz, 2621 Petworth Ct., Cincinnati 36, O., all kinds of Rutland Ry. pix, esp. old ones, and other material for history he is writing.

Writing history of gas-elec. cars and locos built by GE during 1906-'18, Raymond Corley, 490 Albertus Ave., Peterboro, Ont., Canada, seeks pix and info.

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Not Listed in The Official Guide

by ELLIOTT KAHN

SINCE August '62 we have been serializing a list of nearly 3,000 railroads not mentioned in *The Official Guide*. They are mostly industrial lines.

All wheel arrangements (0-6-0, etc.) specify steam power unless otherwise noted. To save space we omit Co., Corp., and Inc. from most corporation titles. Also, we use these abbreviations: *AFB* (Air Force Base), *CLC* (Canadian Locomotive Co.), *des* (diesel-electric switcher or switchers), *Comm.* (Commission), *Consol.* (Consolidated), *DH* (diesel-hydraulic), *DM* (diesel-mechanical), *elec.* (electric), *F-M* (Fairbanks-Morse), *GE* (General Electric), *GM* (General Motors), *hp* (horsepower), *loco* (locomotive), *MLW* (Montreal Locomotive Works), *n.g.* (narrow gage), *Ply.* (Plymouth), *std.* (standard), and *Whit.* (Whitcomb).

Your complier (75-48 183rd Street, Flushing 66, N.Y.) appreciates additions and corrections. In our next issue we will resume serialization of the original list, beginning with the State of Washington.

ADDITIONS & CORRECTIONS

ALABAMA: Montgomery—Armour Fertilizer, 1-ton Brookville gas 0-4-0; Excelsior Brick, 5-ton Brookville gas 0-4-0.

ARIZONA: Joseph City—Arizona Public Service, ½ mile, one GM 600-hp des.

CALIFORNIA: Alameda—U.S. Naval Air Station, diesel; Antioch—Fibreboard Paper Products, one GE 70-ton des; Castroville (4 miles south of)—Lapis, loco; Chico—Diamond National, one GE 150-hp des; Logan—Granite Rock, diesel, steam loco, crane, several gondolas; Newark—Morton Stalt, n.g. locos, cars.

Oakland—U.S. Naval Supply Depot, diesels, loco cranes, cars; Oakley—DuPont Chemical, one GE 150-hp des; Pleasanton—U.S. Naval Air Force, line abandoned; Radum—H.J. Kaiser (corrected list), 2 GE 44-ton des, one GE 45-ton des, 2 loco cranes, hopper car; Red Bluff—Diamond National, one GE 150-hp des; Redwood City—Leslie Salt, 7 GE 0-4-0 gas-elec. locos, 60 four-wheel dump cars, other service cars, 36" gage.

San Francisco—U.S. Naval Yard, diesels, cranes, cars; Selby—American Smelting & Refining, one GE 300-hp des; South San Francisco—Metal & Thermite, one GE 150-hp des, 2 loco cranes, 5 gons; Sunnyvale (Moffat Field)—U.S. Navy, 3 diesels, tank car.

COLORADO: Golden—Colorado Railroad Museum, 2-8-0, gas railbus, other cars, 36" gage; Oliver—Mineral Development Corp. of Colo., line abandoned; same corp. at Somerset, line sold, now Columbia-Geneva Steel.

CONNECTICUT: Middletown—Hartford Elec. Light, 2 GE 150-hp des.

GEORGIA: Augusta—Georgia-Carolina Brick & Tile, 8-ton Brookville gas 0-4-0; Fortson—Vulcan Products, one GE 80-ton des; Linsdale—Pepperell Mfg. no longer has loco, only loco crane.

ILLINOIS: Alton Box—4-wheel diesel; Hyman Michaels, Whit. 0-4-0 DM; Mississippi Lime, Whit. 0-4-0 DM; Dupo—Columbia Quarry, one GE 380-hp des; Granite City—Union Starch & Refining, one GE 150-hp des; Monsanto—Socony-Mobil, Whit. 0-6-0 DM; Venice—Union Elec., two 0-4-0T's.

INDIANA: Indianapolis—Kingan & Co., one GE 70-ton des; West Lafayette—Purdue Univ. is reported to have 1½ miles of route mileage. Its diesel is not GE but is Whit. 4-wheel des.

IOWA: Ames—Ford Motor no rr; here Ankeny—John Deeye Implement, ?; Avon—Farmer's Grain Dealers Asso. of Iowa, 2 Davenport 20-ton DM;

Belmond—General Mills (Larro Feeds), Trackmobile; Burlington—Iowa Ordinance Plant, one GE 45-ton des, one Whitecomb 65-ton des, cars; Cedar Rapids—Quaker Oats, 2 Ply. gas 0-4-0's; Council Bluffs—Iowa Power & Light, ?; Davenport—J.I. Case, one Davenport 20-ton des.

Des Moines—Coon Valley Gravel, Ply. gas 0-4-0; Des Moines Water Works, Trackmobile, loco cranes; Farmers Grain Dealers Asso., Trackmobile; Iowa Power & Light, one GE 45-ton des; Marquette Cement, one GE 45-ton des, also leases a Whit. 500-hp des (RI); A. Neuman Construction, Ply. gas 0-4-0; Swift & Co., Trackmobile.

Earlham—Marquette Cement, one GE 400-hp des; Eddyville—Concrete Materials Div. of Martin Marietta, 2 Ply. gas 0-4-0's; Ft. Dodge—Bestwall Gypsum, Trackmobile; Iowana—Iowa-Illinois Gas & Elec., one GE 45-tone des; Kalo—Johnson Clay Products, Brookville gas 0-4-0 cars, 30" gage; Le Grand—Concrete Materials Div., 2 Davenport 20-ton des; Linwood—Linwood Stone Products, one Davenport 20-ton des.

Mason City—Lehigh Portland Cement, one GE 30-ton box-cab des, one Whitcomb 65-ton des; Northwestern States Portland Cement, one GE 25-ton des, one Whitcomb 65-ton des; Mt. Pleasant—Midwest Central R.R. has in addition to previous list, the ex-CB&Q Mark Twain Zephyr (articulated diesel train) on exhibit; Muscatine—Kent Feeds, Trackmobile; Ottumwa—John Morrell, one Alco 1000-hp des; Redfield, Central Soya, ?

Redfield—Irontile Corp., loco, cars, 36" gage; Redfield Brick & Tile, Ply. gas 0-4-0, cars, 24" gage; Sioux City—L.G. Everist Construction, Whitcomb gas 0-4-0; Irving Jensen Construction, Ply. gas 0-4-0; West Des Moines—Concrete Materials Div. of Martin Marietta, one GE 25-ton des, one Davenport 20-ton des; West Des Moines—Penn-Dixie Cement, 3 Ply. gas 0-4-0's; Winterset—Penn-Dixie Cement, reported to have either one GE 85-ton des or 3 or 4 small diesels.

KANSAS: Bonner Spring—Lone Star Cement, one Porter 20-ton des; Kansas City Stockyards—one GE 70-ton des.

KENTUCKY: Daisey—W.M. Ritter plant sold to Stewart Lumber.

LOUISIANA: Ansley—Davis Bros. Lumber, abandoned, gone; Elizabeth—Calacasieu Paper has 0-4-0 in addition to previous list; Erath—Vermillion Sugar, both steamers sold and moved off; Ft. Polk—U.S. Army, all equipment gone; Franklinton—Green Bros. Gravel, 2-8-2 moved here from Georgetown, Miss., operation; Holly Ridge—Geo. B. Franklin Lumber, line abandoned, equipment gone; Long Leaf—Crowell & Spencer Lumber (corrected list), 4-6-0, 2-6-0; New Orleans—Port of N.O., one GE 600-hp des; W. Monroe—Olin Mathieson Chem. 2-6-2 sold, moved; Zimmerman-Bentley Lbr., abandoned.

Manchac—Roseland Box, line abandoned, no equipment left; Natalbany—Natalalbany & Western (3000 ft.), 0-4-4T, caboose, 5 other cars, all 36" gage, also 2 std.-gage cabooses on display; Patoutville—M.J. Patout & Sons, all equipment sold, removed; Shiloh—Louisiana Eastern Ry., all equipment sold or scrapped; Pontchatoula—King & Lynn Line, 0-4-4T is 36" gage, 0-4-0T is 30" gage, not as listed; Waterproof—Chicago Mill & Lumber, line abandoned.

MAINE: Limestone—U.S. Air Force; corrected roster: 2 BLH 1600-hp des, one snowplow, one loco, 19 tank cars.

MARYLAND: Aberdeen—U.S. Army, 2 Alco des; Chesterton—see list under New York; Silver Springs—Potomac Power plant not located here but at Dickson.

MASSACHUSETTS: Charlestown—Cavoni & Co., diesel, 4 or 5 loco cranes; Watertown—U.S. Army Arsenal, 2 GE 44-ton des, several diesel loco cranes.

MINNESOTA: Hibbing—Oliver Iron Mining, 3 GE 70-ton des; Minneapolis—Cargill, gas 0-4-0; St. Paul—Theo. Hamm Brewing, diesel is GE, not Whitcomb; Savage—Cargill, one Alco des; Savage Grain Elevator, Ply. DH; Winona—Winona Aggregate, Ply. 0-4-0 diesel, Vulcan gas 0-4-0.

MISSISSIPPI: Pascagoula—Ingalls Shipbldg., several Adamson, Brookville, and Ingalls gas locos, several loco cranes; Columbus—Hooker Chemical, one Trackmobile.

MISSOURI: St. Louis—ACF Industries, one GE 45-ton des, several cars; Missouri Portland Cement has one GM 600-hp des, several gondolas, ignore previous listing.

NEVADA: Empire—U.S. Gypsum abandoned, all gone; Rutn—Kennecott Copper, 6 GE 70-ton des.

NEW HAMPSHIRE: Bow—Public Service of N.H., one GE 275-hp des.

NEW MEXICO: Loving—U.S. Potash also has 3 GE 70-ton des.

NEW JERSEY: Bridgeton—Owens-Illinois Glass, several gas 0-4-0's; Camden—R.M. Hollingshead, Ply. 0-4-0 diesel; Deepwater Point—Deepwater Operating, 2 GE 150-hp des; Edma—Cape May County Airport, 2 steam cars, all 36" gage, equipment from Ireland; Kenvil—Ferro-Monte RR. abandoned, gone; Linden—Gen. Analine & Film, one Atlas 35-ton des.

Fort Dix—U.S. Army, one Alco 1000-hp des; Freehold—Pine Creek R.R. has 4-4-0T, Ply. gas 0-4-0, coach, all 36" gage, plus previous list; McGuire A.F.B.—U.S. Air Force, 2 GE des; Millville—Armstrong Cork, several gas locos; Pedricktown—U.S. Army QM., diesel; Trenton—American Bridge, Div. of U.S. Steel, gas 0-4-0.

NEW YORK: Alsen—Lehigh Portland Cement, one GE 70-ton des; Battle Island—Armstrong Cork, Ply. gas 0-4-0; Carthage—St. Regis Paper, diesel; Dunkirk—Alco Products, ¾ mile, one Alco des, 8 flatcars, hopper; Allegheny-Ludlum Steel, 1½ miles, one GE 375-hp des, 10 flatcars, boxcar, diesel loco crane, steam loco crane; Niagara Mohawk Power, ½ mile, one Alco des, other diesel; Fulton—Sealright Co., one 44-ton des; Geddes (Syracuse)—Crucible Steel, one GE 44-ton des; Catskill—N. Amer. Cement, one Atlas 35-ton des; Niagara Falls—Olin Mathieson, one Trackmobile; Vanadium Corp. of Amer., plant closed, line abandoned.

Sandy Creek—Rail City Museum, additions to previous list: interurban car, gas railbus, Ply. gas 0-4-0; Solvay—Semet-Solvay Div., Allied Chemical, 4 diesels, over 500 tank cars, several hoppers; Syosset (Muttontown)—Indian Valley R.R. abandoned at this site, being rebuilt at Chestertown, Md., gage is 24", not 36", 2 locos, 2 cars; Syracuse—Gen. Elec., one GE 380-hp des; Watervliet—Allegheny-Ludlum Steel, one GE 150-hp des; U.S. Army Arsenal, 2 GE 44-ton des.

NORTH CAROLINA: Maggie—Highlander R.R., 2½ miles, two 2-truck Heislers, 2 or 3 cars.

OHIO: Massillon—Griscom-Russell, line abandoned, gone; Portsmouth—Detroit Steel, 4 GE 70-ton des.

PENNSYLVANIA: Ashland—Ashland Community Enterprises, 0-4-0T, 6 coaches, 2 hopper cars, all n.g.; Bridgeville—Universal Cyclops Steel, one Atlas 50-ton des.

SOUTH CAROLINA: Liberty—Campbell Limestone, 2-truck Heisler on display; St. Stephen—Santee River Hardwood, line abandoned, gone; Charleston—North Charleston Term; one Atlas 50-ton des.

TEXAS: Baytown—Humble Oil & Refining, one GE 70-ton des; Fort Worth—Leonard's Dept. Store, ½ mile, 6 PCC streetcars; Austin—Texas Crushed Stone, one Atlas 50-ton des; Corpus Christi—Nueces County Navig; one GE 275-hp des.

WASHINGTON: Metaline Falls—Lehigh Portland Cement, one GE 70-ton des; Tacoma—Hooker chemical, one diesel.

Thanks for Additions, Corrections

Dr. Bernard Albert, John Beach, Mel Beaton, Jr., Ken Borg, Steve Donaldson, Walter Dunlap, Joseph Gola, George Gregory, David Haynes, Bert Johanson, Thomas Lawson, Jr., Berry Mayer, K.P. Miller, Wm. Moore, John Nielsen, Richard Palmer, W.G. Rattley, Wm. Riebe, R. Donald Ross, Ronald Sims, H.A. Smith, Hugh Stephens, Kent Stephens, John Stroup, C. Wm. Witbeck, Ted Wurm, J. I. Lacey, Rev. Geo. Freer, James Dahlberg, J. Webster. ●

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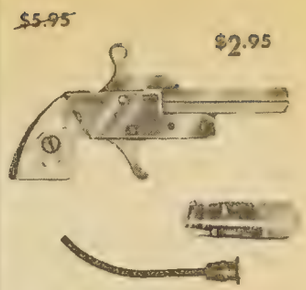

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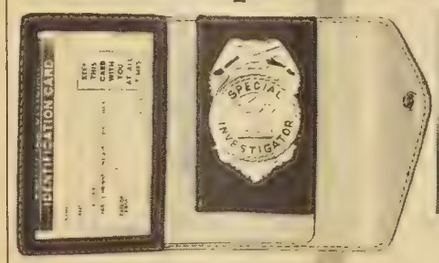

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Made of heavy black leather. Used by law-enforcement agencies throughout the world. Holds both badge and identification cards. 4½" long and 3" wide when closed.
Badge and I.D. Card extra. Badge case only $2.98. I.D. Cards 25c each.

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"Petal" Sub-Miniature-Size Camera is smaller than a 50-cent piece. Takes 6 exposures, 3/16" diameter, enlarge beautifully. Film readily available. Camera features fine-ground lens—f 5.6, single-action shutter-1/50, eye-level view finder, fixed focus, all steel construction. Advertised nationally at $9.95, our special purchase makes "Petal" available to you for only $3.98
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This fabulous knife is famous on the Continent for hunting and fishing emergencies and it is faithfully trusted by sportsmen all over the world. Made of high test carbon steel. Positive lock, open or closed. 5 9/16" open, $4.70; 7 1/16", $4.95; 9", $7.50; 11", $12.95

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Finest quality with reinforced backs and pins for heavy duty. A quick flash of one of these gleaming, official-looking badges instantly shows who has the power! Your choice: Special Officer, Deputy Sheriff, Constable, Watchman, Sheriff, Police, Special Police, Private Detective, Civilian Defense, Special Investigator. Standard size: $1.98. Miniature: $1.25.
SPECIAL OFFER: FREE! Authentic, Badge Carrying Case FREE with each badge.

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INVENTIONS NEEDED IMMEDIATELY for manufacturers. For additional information write Kessler Corporation, C-136, Fremont, Ohio.

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SWITCH LIST

THESE items are published free and in good faith but without guarantee. Keep with 28 words, including your name and address. Use abbreviations such as *tts.* (timetables), *emp. tts.* (employees timetables, *b&w* (black and white), and SSE (send 5¢ stamped envelope for list or details).

A tight printing schedule compels us to close the *Switch List* a long time before publication date. As this magazine hits the newsstands, our next department is already closed. Entries for Oct. issue (out Aug. 5) should reach us not later than May 20, stating:

(1) sizes of pix, (2) whether steam, diesel, or what, (3) if a list is available, and (4) condition of books or magazines you offer.

If you want pen pals, state your own special interests so that they will know what to write about.

Write each item plainly or pen-print or typewrite it on a postcard or separate sheet of paper—not buried in a letter dealing with other matters. We discard items hard to read. Address Sy Reich, *Railroad Magazine*, 205 East 42nd Street, New York 17, N. Y.

HOWARD AMELING, 807 Court St., Fremont, O., sells steam pix 3½x5 to 8x10. List, sample 10¢.

R.J. ANDERSON, 334 S. Prindle, Arlington Heights, Ill., sells steam, diesel, elec. negs.

JOE ATTARBO, 38 Village St., Brooklyn, N.Y., wants color slides, color pix PRR trackless loco 445, RDG 118, Seattle monorail, D&RGW K-M-K's, PRR 3921, GN 1106 (2-8-0).

R. BALL, 13 Ridgecrest East, Scarsdale, N.Y., sells fine salon photos, steam, most Class 1 roads. (SSE) Sells many orig. negs.; no list; specify your interest.

G.C. BALLIETT, 2529 E. Cresthill Ave., Littleton, Colo., sells 2-track 7½-ips tape recordings of C&W. (SSE)

JOHN BARTH, Jr., 54 Poplar St., Closter, N.J., sells diesel, elec. pix, all sizes LIRR, NYC, EL, etc. List 5¢.

JAY BEARDSLEY, 451 W. Mifflin St., Madison, Wis., will sell circus material or trade for Loco Catchechism by Grimshaw.

RICH BONEKEMPER, 212 Green St., Lansdale, Pa., seeks sharply detailed pix of Phelps-Dodge (Ajo, Ariz.) GP-30.

ERVIN BORDEN, 166 Hillman St., New Bedford, Mass., will buy QBRy or Union St. Ry. 600 series roll signs. Also buys color, b&w pix, slides, movies of Union St. Ry.

W. BROSCHART, 86 Fairview Ave., Bogota, N.J., sells old issues of Trains, English ry. mags., rr. and trolley negs., tts. (SSE)

RON BURR, 1429 Roberts Ave., Whiting, Ind., wants any size C&O pix, tts.

RAY BYERS, 167 Feronia, Rutherford, N.J., sells Indiana rr. pix. (SSE)

LEO CALOIA, 14813 Mansa Dr., La Mirada, Calif., trades 35mm negs., LAMTA trolleys for CNS&M, CSS&SB.

ED CHASE, 16233 Lilac Lane, Los Gatos, Calif., sells 3½x6 pix steam of SP, ATSF, Sierra, etc. List 10¢ and SSE.

NORTON CLARK, 21 Endicott St., Newton Highlands, Mass., buys orig. 35mm color slides LNA&C, Ferdinand RR, SI, action pix BTC sweepers.

L.P. CUMMINGS, Jr., 129 Nevin St., Lancaster, Pa., will sell 1000 streetcar pix, U.S., Canada; 700 U.S. rr. pix; all p.c. size, 15¢ ea. What Conestoga Traction pix have you?

OWEN DAVIES, 1214 N. LaSalle St., Chicago, Ill., buys, sells wide variety railroadiana; big list 10¢.

GEO. DEROSIER, Woodside, Putnam, Conn., will sell 3 old bronz trolley-pole pulleys that ran along power line; make offer.

FRANK DIFALCO, 31 Ringgold St., Haverhill, Mass., sells New England area diesel pix. (SSE) Wants negs. of B&M BL2's.

ALDO DISABATINO, 1711 W. 4th St., Wilmington, Del., wants Ira Swett's Special 11 on LA Rys.

PAUL DOUGLAS, 1704½ Main St., Vancouver, Wash., trades loco and train negs., catalogs.

H.W. EVERHART, 402 Warrington Pl. Alexandria, Va., wants pix, slides, negs. of private, office or business cars.

ARTHUR FRAKES, 3921 4th St., Port Arthur, Tex., will sell seven '16-'17 Railroad Man's Magazine or trade for tts., emp. tts., switch keys, uniform buttons.

TOM FRANCIS, 702 Railroad St., Ypsilanti, Mich., wants list of NYC Detroit-Chicago trains '45-'55. Also NYC emp. tts. '40-'49.

BOB GARASHA, 4102 Argyle St., Chicago, Ill., sells duplicate 600' 8mm movies of San Juan, Silverton, and Galloping Goose taken in '49-'51.

STEVE GARY, 680 12 St., Campbell, O., sells quality steam pix. (SSE)

JOHN GAYDOS, 6911 N. Caldwell Ave., Chicago, Ill., says he'll give free loco-pic postcards as long as supply lasts if you encl. stamped env. and use big com. stamp on outside env. (Ed note: he didn't mention size of supply.)

DICK GIDLEY, 1001 Hoodview Lane, Lake Oswego, Ore., will sell D&RG 1887 stock certif. $1, Prov. & Wor. '62 receipt, Car Bldrs. Cyclo '57, etc. (SSE)

WM. GORDON, 811 Garson Ave., Rochester, N.Y., sell 34-page "Story of Susq. & NY RR," 8x5", 20 pix, roster.

STEVE GRAY, 2105 Guyer St., High Point, N.C., sells rr. pix. (SSE)

TOM GRAY, 956 Madrid St., San Francisco, Calif., sells size 616 negs. SP, shortlines, steam, diesel, elecs., cable cars. Lists free.

TOM GRECO, 4004 Maple St., Omaha, Neb., wants current B&O emp. tts.

E.J. HALEY, 33 Foster St., Newark, N.J., will sell Railroad Magazine 1929-'54, good cond.; also will sell rr. bks. (SSE)

GRAHAME HARDY, Box 622, Carson City, Nev., buys and sells much railroadiana; big list 10¢.

BRUCE HEARD, 1005 Vegedes Ave., Fresno, Calif., wants SP, T&NO tts., pass. train descriptive folders, route guides, menus, stationery, etc.

JOHN HICKEY, (asst. stationmaster), 23 Railway St., Corrimal, N.S.W., Australia, wants to correspond with N. Amer. enginemen and traffic employees.

BIILL HOFFMAN, Jr., 326 S. East Ave., Baltimore, Md., sells 5x7 steam pix WM, B&O, etc. List 10¢.

C.W. JERNSTROM, 822 Pelham Dr., Fort Wayne, Ind., sells steam pix U.S., Canada, Mexico. (SSE)

M.A. JOHNSON, Rte. 2, Tecumseh, Mich., buys celluloid, metal ry., trolley, ferry tokens.

C.H. JOHNSTON, Conshohocken, Pa., sells railroadiana, model rr. passes, pix, old issues Railroad Magazine, bldr's. plates, headlights, lanterns, tts., tkts.; list free.

ARNOLD JOSEPH, 2512 Tratman Ave., Bronx, N.Y., sells back issues Railroad Magazine, Trains, etc. (SSE) Buys rr. or model mag. collections.

BASIL KOOB, Box 279, Fort Dodge, Iowa, says he will give free 35mm color slide MC&CL or CA&E (interurbans) to all who write; state which.

DICK KOTULAK, 2429 Good Hope Rd. S.E., Washington, D.C., wants any size color, b&w pix Wilkes-Barre, Harrisburg or Hershey trolleys.

BOB LEHMUTH, 218 Terrace Ave., Hasbrook Heights, N.J., wants 5x7 or 8x10 pix RDG 19sb 1908, CB&Q 01a 4961, 4991, NYC R2 318, Huss. Paper & Pulp 2-6-2 6, PRR B6sb 1678.

JOHN LOCKE, 428 Prospect Ave., Hackensack, N.J., sells p.c. size or larger steam pix of Eastern rrs. Sells, trades p.c. size negs.

A. MAURER, 908 E. Diamond St., Pittsburgh, Pa., sells 8x10 MKT stock certificates from the 1800's. (SSE)

BARRY MAYER, 10228 Edgewood Ave., Silver Spring, Md., sells diesel pix, 3½x3½ and 3½x5, B&O, SOU, PRR, C&O, NYC, NP, GN, SP, CNR, CPR (SSE)

HENRY MERCUR, 3020 Midvale Ave., Philadelphia, Pa., has many tts. for sale; new list is ready.

NED MILLARD, 2403 Flicker Lane, Rolling Meadows, Ill., wants anything on C&NW.

SINICHI MIYAZAKI, Ohno, Inaba-cho, Inaba-gun, Gifu-ken, Japan, sells 35mm color slides Japanese rrs. MU, EL, DC.

L.D. MOORE, 121 Flag Rd., Portsmouth, Va., sells negs., pix steam, trolleys, emp. tts., tts., bks., railroadiana. List 10¢.

A/1C CARL MUNCK, Bldg., 143, Camp Kilmer, Edison, N.J., sells size 616 and p.c. steam pix D&H, B&M, RDG, CNJ, etc. Buys any size D&H negs.

CHAS. MUNGER, 147 Great Neck Rd., Waterford, Conn., sells tts., tkts., railroadiana B&M, NH, Old Colony, etc. List 10¢.

JOHN NELSEN, 71 Humphrey Dr., Syosset, N.Y., wants pix, plans, info. on D&H steam, esp. Mallets and 1188. Will trade B&LE bk. "Off With the Old and On With the New."

DAVE NESTLE, 81 Hill St., Greenwich, N.Y., sells wide variety of railroadiana. Large list 10¢.

NORM NEWCOMB, Box 131, Pasadena, Calif., sells tape recordings UP 844, McCloud Riv. steam.

NORMAN ORFALL, 412 W. 6th Pl., Mesa, Ariz.,

sells emp. tts., Off. Guides, rulebks., magazines, railroadiana, pix Magma Ariz., SW Lumber steam.

M.E. OVERHOLT, 614 E. Main St., Casey, Ill., will buy or borrow old issues Railroad Man's Magazine carrying articles on Standard Oil and pipeline telegraph lines. (Ed. note: we don't know which issues.)

JOHN PARKER, Rt. 1, Box 106G, Aiken, S.C., trades size 616 negs. of Ga. area for sizes 620, 616 negs. of Monon, Interstate. Print lists, 10¢.

MATTHEW PAUL, 131 Vassar Ave., Newark, N.J., trades current NY and Phila. areas tts. and rr. literature for Chicago area material.

BENJ. PERRY, Jr., 113 Sheldon St., Providence, R.I., sells 35mm dupl. Kodachrome slides: NH "Dan'l Webster," "Quincy Adams," Mack railbus, all 3, $1.

WAYNE PETTERSEN, Birch Rd., Kinnelon, N.J., sells, trades NYS&W tts., tr. orders. Wants pen pals interested in NYS&W.

FELIX POLEK, P.O. Box 254, Braddock, Pa., will buy New York Central calendars, 1921-'32.

HERNDON PRICE, 204 Chambers Ave., Georgetown, Ky., wants small size diesel color pix.

DON PRIMI, you didn't mention your city.

BILL RAIA, 3319 N. Wolcott, Chicago, Ill., wants action pix, movies, sound recordings CRI&P steam. Will sell '94 CMSP&P rule bk., good cond.; steam, diesel pix (SSE)

BOB RATHKE, 56 Woessner Ave., Pittsburgh, Pa., sells NKP, B&O, B&LE slides and 35mm negs. of stored steam. Wants slides, negs. B&O steam.

WALT REDMAN, 8906 Piedmont, Detroit, Mich., sells back issues Railroad Magazine, Off. Guides, link-and-pin loco pix, rr. postage stamp album, Kodachrome slides of Alaska tour. (SSE)

SAM REEDER, Jr., Munnsville, N.Y., sells NYO&W tele. pole tags or trades for other NYO&W items. (SSE)

FRANK REILLY, 54th Infantry, Personnel, APO 176, New York, sells 3x4, 8x10 pix German, U.S. steam, diesels, elecs. List 5¢ stamps.

PALMER RICHARD, 104 Croly St., Syracuse, N.Y., wants Baldwin construction number records. Will buy or trade BLW history and BLW catalog 86 for it.

C.E. RIGHTER, 167 Barriolhet Ave., San Mateo, Calif., sells genuine cancelled rr. stock certificates.

DON SARNO, 2316 Braemore Rd., Columbia, Missouri, buys, trades emp. tts., all rrs.

S. D. SCHWEDLER, 1511 E. Cypress St., Phoenix, Ariz., buys 5x8 pix, slides Colo. n.g. rrs. Needs close-up shots DTRGW 345, MW 02, RGS 6.

JIM SEACREST, 2750 Woodscrest, Lincoln, Neb., buys all size negs. CB&Q, FW&D, C&S steam, motors, diesels.

FRANK SEIFFERT, Jr., Box 21, Orange, N.J., sells steam and elec. pix, size 616, Eastern rrs. Either list with 10 pix 25¢ Both lists with 20 pix 40¢.

DOUG SEMMENS, 44 Hicks Ave., Greenford, Middlesex, England, sells Peckett catalog of British industrial steam switchers.

FRED SKEENS, 528 Summit St., Bristol, Va., wants pix, info. on Palace Line poultry cars.

TOM SMART, 116 Gibson Rd., Louisville, Ky., sells rr. pix, magazines, emp. tts., tts., bks., slides other railroadiana. List 25¢, refundable.

FRED STECK, Rte. 1, Reese, Mich., sells 8mm movies, 35mm slides U.S. and Canadian steam.

MIKE STERNFELD, 26-11 York St., Fair Lawn, N.J., sells b&w postcards of DL&W MU RPO's, coaches, EL diesels, BEDT 0-6-OT's. Buys Erie steam negs., PSCT trolley negs. in Fair Lawn.

JOHN STILL, 931 Sixth St., Dayton, Ky., trades 8x10 railroad pix.

PAUL STRINGHAM, Box 743, Peoria, Ill., will sell Poor's book "DSP&P," Cafiky's "Rails Around Gold Hill," Warman's "Snow on Headlight," all good cond.; make offers.

R.W. TESCH, 832 N. Greenwood Ave., Park Ridge, Ill., buys size 616 trolley and bus negs., especially Wisconsin lines.

JOHN THOMPSON, 1571 Mt. Pleasant, Toronto, Canada, buys orig. 35mm color slides of U.S. steam, elec. Trades Toronto area slides for U.S. items, certain Canadian slides.

PAUL THOMPSON, Box 1804, Prescott, Ariz., buys, sells, trades train orders. Needs odrers from L&N, Monon.

BOB TOOKUP, Churchill Hall, Huron College, Box 55, Huron, S.D., wants pix PRR Toms River branch stations, tracks, facilities.

MIKE VAIUSO, Jr., 32 Northampton Rd., Amsterdam, N.Y., trades size 616 negs., NYC, B&M diesels for those of other rrs.

BILL VOLKMER, 1414 Simpson Ferry Rd., New Cumberland, Pa., wants color slides Wilkes-Barre or Reading trolleys.

A. VON BLON, Box 6422, BU Sta., Waco, Texas, sells privately-printed pamphlets containing extracts from lawsuit of A.D. Beatty v. MKT, $1.10 each.

C.R. WATERMAN, 931 Burton St. S.E., Grand Rapids, Mich., buys 116, p.c., 5x7 pix PM 498, 499, 395, 399, Kanawha & Mich. 560, 561.

BOB WEBSTER, 5244 Dunbar St., Vancouver, B.C., Canada, trades CNR, NAR, WP&Y steam train orders, BCER train orders for Canadian steam and N. Amer. traction orders.

AL WHYTE, 3 Vulcan St., San Francisco, Calif., sells 8x10 pix MUNI cable cars.

MIKE WHITE, 343 Asilomar Blvd., Pacific Grove, Calif., wants any size negs. B&O, SLSF, SLSW, builders plates from any rrs., Baldwins, Alcos, Limas.

CURT WIEBE, 1046 W. 6 St., Santa Ana, Calif., trades mags., tts., steam pix ATSF, SP steam, diesel pix, size 120, for what have you.

J.R. WILLIAMS, 8 Hovey Lane, Hanover, N.H., wants pix B&M steel pass. cars, esp. ex-RDG coaches; 3620 class 4-6-2's, esp. 3629; wooden cabooses.

DENNIS WOZICZKA, 1804 LaPorte Ave., Whiting, Ind., wants pen pals interested in collecting tts.

TED WURM, 122 Monte Vista, Oakland, Calif., sells rr. books. (SSE)

DICK YAREMKO, 10516 81 Ave., Edmonton, Alta., Canada, buys diesel pix smaller than 10x10, GN, NP. Wants pen pals interested in those roads.

Model Trading Post

BOB GARASHA, 4102 Argyle St., Chicago, Ill., will sell five HOn3 locos; 47 HOn3 cars, or trade for On2½ equip. (SSE)

DAVE JOHNSON, 1174 Evelyn St., Ypsilanti, Mich., wants O gage tall-smokestacked 2-8-0 or 2-8-2.

J.R. LAUGHLIN, 33-R Winthrop St., Rehoboth, Mass., will sell outdoor 12" gage gas streamliner, steam coalburner, cars. Pix and details $1.

J.L. O'DONNELL, 121 Arthur St., Truro, N.S., Canada, will trade U.S. stamp collection for HO locos.

ROBT. WALLICH, 310 Ottawa St., Washington, D.C., will sell Hamo streetcar set $16; motorcar, trailer, small circle of track. ●

Railroadiana

You can get good copies of Matthew Brady photos of Civil War railroad subjects by writing to National Archives, Still Photo Section, Washington 25, D.C. Size 8x10 at 75¢ each.

Travel bags of white durable plastic with large Rio Grande emblem in gold and black may be had for $1.50 each plus 25¢ postage from Mrs. Iva H. Andrews, Personnel Asst., Denver & Rio Grande Western RR., 1531 Stout St., Denver 17, Colo.

New York Central steam action slides, mounted on 2x2" cardboard, the largest collection available to the average fan at any price, may be bought at 35¢ each from 35-Slides, Box 369, Green Mountain Falls, Colo. These slides were taken from 1949 to '54; few are close-ups.

"Thunder on Horseshoe Curve," in full color, the first of a new series of steam prints, 19½x23½", hand-signed, suitable for framing, is available now from Otto Kuhler, KZ Ranch, Pine, Colo.; at pre-publication price of $6.50. Price after May 1, $7.50.

Canadian RR. Historical Asso. is selling "Northern Sunset," 7" recording of CNR steam locos 6153, 6157, and 5107 on recent fantrips, at $1.98. Available from Secretary H. M. Parry, c/o Canadian Nat. Rys., P.O. Box 8100, Montreal 3, Que., Canada.

Colombia issued commemorative stamps honoring its Atlantic Railroad. The 10 centavos shows a map of Colombia and various roads. The 5¢ airmail features old and new locomotives.

A wide variety of railroadiana is sold by Colorado RR. Museum, Box 641, Golden, Colo. Catalog is available if you enclose a self-addressed stamped envelope, size approximately 4x9½".

John Scott, a county detective living at 3716 Rosebrook Court, Concord, Calif., sells locomotive bells and whistles, also marker lamps.

In our Feb. '63 issue a reader described the "Quebec" as the last business or private railway car he knew of with an observation platform on each end. Both CNR and CPR have such cars in regular service, reports P. Murphy, Loco Foreman, Canadian Rail Transportation Museum in Montreal. The Canadian RR. Historical Asso., which operates this museum, has 2 such cars preserved. One was built in 1869, ten years before the "Quebec."

Speaking of business cars, Texas & Pacific has just presented its mahogany-trimmed No. 4 to Texas RR. Museum, operated by Trinity Valley Railfans, Inc., 3828 Timberline Drive, S., Fort Worth, Tex. The fans are repainting and refurnishing it. Also, they are counting the votes received for "Miss Passenger Train, 1963" from Railroad Magazine readers and will state the result in our next issue.

Nebraska RR. Hist. Soc., 2753 S. 27th, Lincoln, Neb., new owners of ex-Wabash open-plat. parlorobs. car City of Wabash, will buy pix and negs. of it in operation. ●

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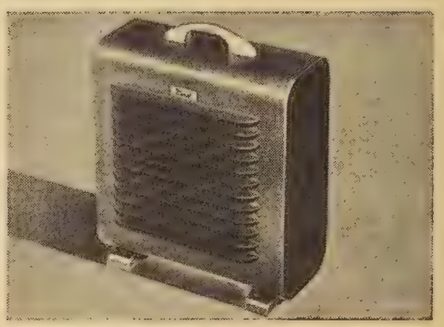
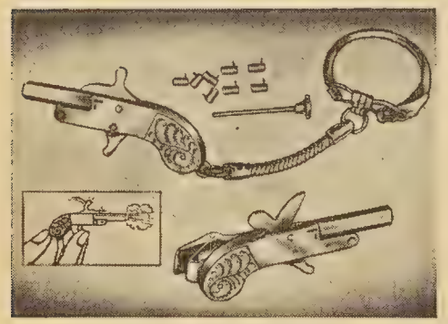
GIANT REMINDER MEMO CALENDAR with lots and lots of white space each day, is a certain cure for missing important dates. A full 6-week schedule is shown on each giant 22" x 16½" calendar sheet with bold, black, easy-to-read lettering. Shows 2 weeks of next month as well as current month. $1 ppd. Greenland Studios, Dept. AMG, Miami 47, Fla.

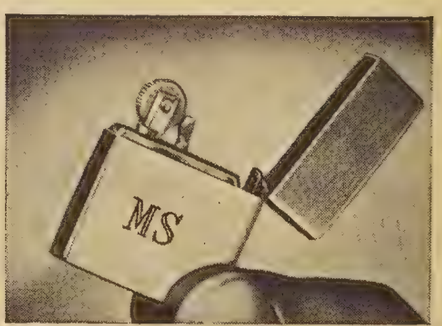


THE HEAT'S ON! This famous electric heater is now being offered at low, low price, but orders are limited to 2 to an address. Portable, silent operation, delivers 4,488 BTUS. Only 11½x9½x5½", yet with power of a giant. Comparable to heaters costing $30-$40. Just $8.88 plus $1 shipping. A.L.K., Dept. AMG, 415 S. Broadway, Yonkers, N.Y.



GET A BANG out of this pistol jewelry! A tiny 1½" long, really fires (safe blanks, of course) with a big-gun roar. Butt has engraved scrollwork design. Barrel breaks for loading, hammer cocks. 25 blanks and ramrod included. Nickel plate. Tie bar, $3.30; key chain, $3.30; 25 extra blanks, $1. Breck's, 30216 Breck Bldg., Boston 10, Mass.

BAWDY ELIZABETHAN BALLADS. Delight in the tingling naughtiness that flows through these authentic ballads, flourishing with the double entendre of the day. 2 vols., both 12" 33⅓ rpm., with Ed McCurdy singing "The Jolly Tinker," etc. Wow, frame the jackets! Both vols., $4.95 ppd. Gotham Records, AMG, 122 East 42nd, N. Y. 17.



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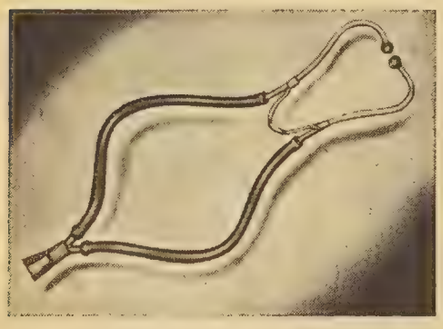
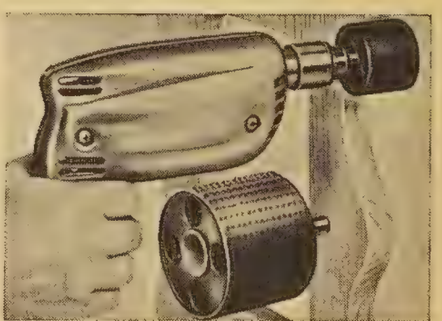


U.S.M.C. STETHOSCOPE. Ever try to buy one of these? Hard to find, and usually expensive, this is a U.S. Medical Corps stethoscope. Brand new surplus; ideal for doctors, engineers and mechanics (to check trouble spots in motors, etc.); fun for kids and adults. $2.95 ppd. (½ regular price). Banner Supply, Dept. AMG, 122 E. 42nd, N. Y. 17.

$1,000 BANK ON WHEELS is a marvelous new copy of the massive Mosler safes grandad used. This all-steel black one has authentic eagle and gold-leaf designs, combination lock, is big enough (6"x7"x9") to hold $1,000 in change! Nice way for young and old to save. $5.95 ppd. Antique Toy, Dept. AMG, 380 Lexington Ave., N. Y. 17.



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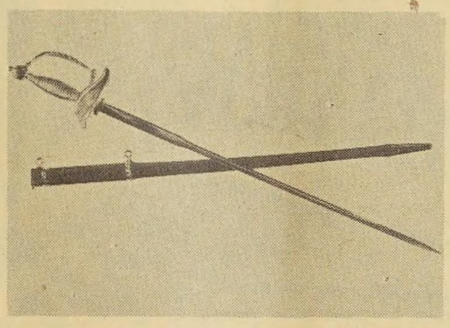

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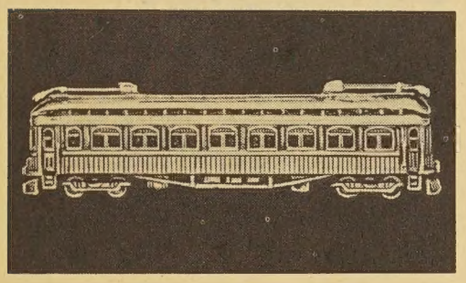
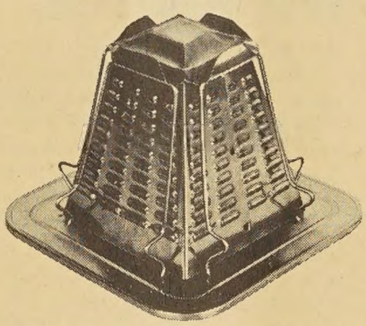


AUTHENTIC REPLICA of a 62-foot Niles Interurban wood coach, skillfully reproduced down to the tiniest detail and made up into smart jewelry pieces for men. Available in tie bar at $2.50; a lariat sport tie at $2.95 (plus 10% Fed. Tax on both). Gold or silver finish. Ask for catalog. Railroad Men's Specialties, Dept. R, Box 328, Dobbs Ferry, N.Y.



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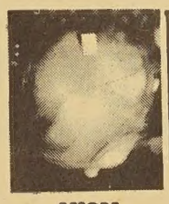

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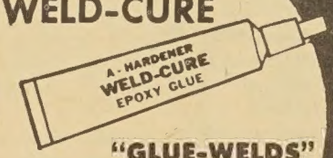

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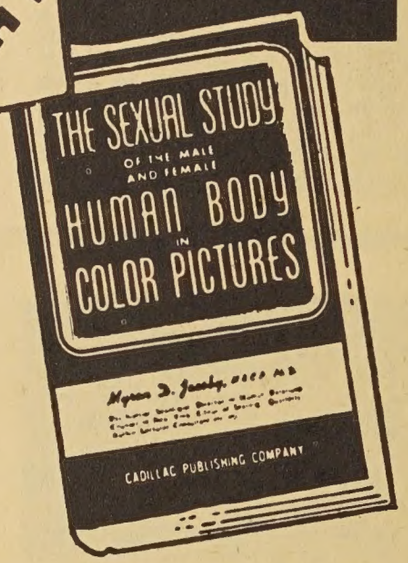

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Profits That Lie Hidden in America's Mountain of Broken Electrical Appliances

By J. M. Smith *President, National Radio Institute*

And I mean profits for you — no matter who you are, where you live, or what you are doing now. Do you realize that there are over 400 million electrical appliances in the homes of America today? So it's no wonder that men who know how to service them properly are making $3 to $5 an hour — in spare time or full time! I'd like to send you a Free Book telling how you can quickly and easily get into this profitable field.

THE COMING OF THE AUTO created a multi-million dollar service industry, the auto repair business. Now the same thing is happening in the electrical appliance field. But with this important difference: anybody with a few simple tools can get started in appliance repair work. No big investment or expensive equipment is needed.

The appliance repair business is booming — because the *sale* of appliances is booming. One thing naturally follows the other. In addition to the 400,000,000 appliances *already* sold, this year alone will see sales of 76 million *new* appliances. For example, 4,750,000 new coffee makers, almost 2,000,000 new room air conditioners, 1,425,000 new clothes dryers. A nice steady income awaits the man who can service appliances like these. And I want to tell you why that man can be *you* — even if you don't know a volt from an ampere now.

A Few Examples of What I Mean

Now here's a report from Earl Reid, of Thompson, Ohio: "In one month I took in approximately $648 of which $510 was clear. I work only part time." And, to take a big jump out to California, here's one from J. G. Stinson, of Long Beach: "I have opened up a small repair shop. At present I am operating the shop on a spare time basis — but the way business is growing it will be a very short time before I will devote my full time to it."

Don't worry about how little you may now know about repair work. What John D. Pettis, of Bradley, Illinois wrote to me is this: "I had practically no knowledge of any kind of repair work. Now I am busy almost all my spare time and my day off — and have more and more repair work coming in all along. I have my shop in my basement."

We Tell You Everything You Need to Know

If you'd like to get started in this fascinating, profitable, rapidly growing field — let us give you the home training you need. Here's an excellent opportunity to build up "a business of your own" without big investment — open up an appliance repair shop, become independent. Or you may prefer to keep your present job, turn your spare time into extra money.

You can handle this work anywhere — in a corner of your basement or garage, even on your kitchen table. No technical experience, or higher education is necessary. We'll train you at home, in your spare time, using methods proven successful for over 45 years. We start from scratch — *tell* you in plain English, and *show* you in clear pictures — everything you need to know. And, you will be glad to know, your training will cost you less than 20¢ a day.

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EARL GROSS, Hanover, Ontario, has spare time shop of his own, does work for four dealers . . . **JULIUS HILLENBRAND,** Brooklyn, N. Y., could hardly make ends meet, now has his own successful service business.

JOSEPH W. SENIA, Stratford, Conn., is a senior Electronics Instructor in the service school of Sikorsky Div., United Aircraft . . . **JOE DUCKWORTH,** Ft. Worth, Tex., says "Thanks to NRI I am in a top position with the Federal Aviation Agency"...**RAYMOND D. ARNOLD,** Attleboro, Mass., was shipboard operator after graduation. He's now chief engineer of Station WARA . . . **JOHN J. JANEGA,** Sydney, Nova Scotia, writes, "NRI training opened up a world of opportunities and gave me confidence. I earn much above average salary as Electronics technician for Canadian Marconi."

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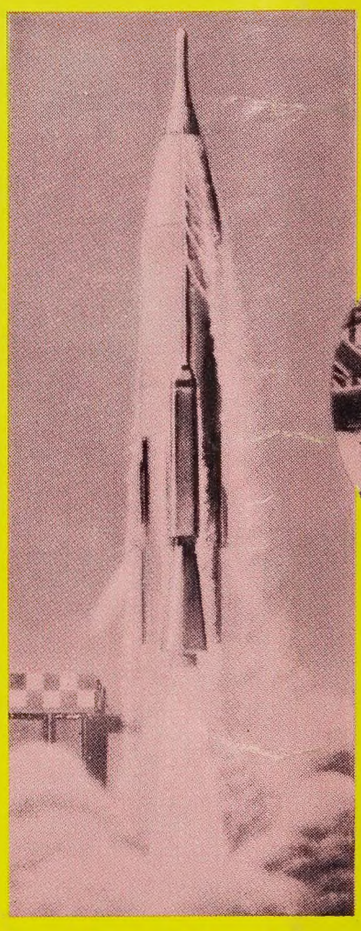

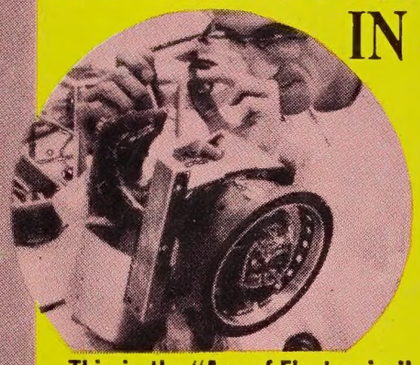

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